Record Group 104. Entry 1.

GENERAL CORRESPONDENCE, 1792-1899.

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RG 104 RECORDS OF THE
       BUREAU OF THE MINT
U.S. Mint At Philadelphia,
1791-1936
Correspondence, 1792-1904
GENERAL CORRESPONDENCE,
1792 - 1899
   1870: JAN. To DEC.
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BOX NO. NC-152 E-1 HM1992

U.S. MINT GENERAL CORRESPONDENCE 1870/JANUARY-FEBRUARY



34 Beach It New York
First 2 1840 Hou. fa! Pollack Derector of the U. S. Mint. Phila. Dear Sir Some months ago Soubmitted to Dr. Forrey, Chief assages of the Sew York assay Office, a copy of the specification of the Patent of hiller for refining Gold by means of Chlorine Gas, together with full practical directions for practicing the process. Dr. Torrey proposed, with the assent of the Sirector of The Mint, to Experiment as to whether the process would be more Economical thou that at present Employed, so as to determie whether it would be Expedient to adopt it, and to pay the palentee for its use.

E. S. Removiele Assayork

The reference of Miller, palent for refining Hols of Chlorine Gas. and arking Drinton in flumen & handing rewards of the U.S.

Rec? Fet. 3/70

Office of I. H. Gantier & Co. Ger- Mock Jersey City, N. J. February 17890. United States Mint Dem dos'- Commenter the direct one of your Clarks to give by
the wants of Officers of the allies of may apply for order for Crowthy to formathe a report of the morking of our Crucity at the Us. assay office in New york that us driver to get three was at the other estabishwerut young July

J. S. Gantier of Insy City Wants name of Mocen 7 Beard Mints on to compand Onthe about Queither.

United States Treasury, New York. Jan. 31. 1870. Sir; I herewith enclose 8-5 coins need at the U.S. Treasury, this city, and submit for your mopeotion, Experts are divided in opinion as to their geneinness. The chief of our cur-Rency dept, is in doubt, and at his sug-gistion I forward them to obtain the deciscon of the Mint, Gleare inform me if there is a - for nickle coin,

Yours truly John O. Johnson,

W.S. Freasury

My. sure test for nickle coin, Suft Mint Philadelphia, In moto in goo weture" la Praise Count for

J. O. Johnson U.S. Freaky ny Enclosing 8-

PEB 2 1870

Transamp Department.

Lebnay 12 1870 Dhe fallowing gentlemen have been designated by the President as Commusioners for the Annual assay at the Munt on the 14th instant, and this day duly notified of their appoint. Trafessor Joseph Kenry Smithsonian Inst! Hashington De no Assay Office Herefork , John Dorrey Prof! Menerology to, School Mines, Chumbia College New York " Tho Egleston Philadelphia Sa An A & Bone Doston Mars. Droam! A Green San Francisco (al. Hon Robb B. Swain Ganesville Olio Han Dan! Afflegate Dreasery Department Hon John Jay Snor New Orleans La. In Ste Bongaro Very Respectfully Hon James Sallock } Secretary of the Dreasung Director of the Much Philadelphia Ta ?

Jezy Beasury Amouncing ap--positioned of Assay Jonnif-2 Simero. J. S. MINS FEB 2 1870 PECEIVED

Mint of the United States.

Philadelphia, And 1860 Siv. The accounts of this on-Olitation do not show any meneorandum of Silver parted for the benefit of the Muit. That which is parted amounting to one dollar or under goed into the granulations and is used as an offset to the mad bage of the Meller and Refined. The quantity, in the aggregate is very Omdel and could not without difficulty, be deter-Very July Yours How James Poelock for Theasurer Director U. S. Mint Philade.



Treasury Department,

Solicitor's Office, February 4, 1870.

Siri

Devolose herewith a letter addressed to Dacob P. Rugwalt Esq., enclosing a form of boud to be executed by him as Moelter and Refrier of the Branch Meint at Carson leity, everada, which you will please deliver or formard to him.

Meny vespectfully ElesBanfield Solicitor of the Treasury,

Mon. Dames Polloch Director of the elluit Philadelphia, Pa. Solicitos q the Treasury

Frankling official
Execution, official
Bondy facot P.
Ringwalt, on Meller
Refine of Janese
Branch Munt



Private Mashington Tel 4.1870 bemedic. The trouble at the assay office, were low pour lothe fact that the districtions and regulations of the Must have not been regular as obligating on that office; tour report iliso state With a becommendation That thereafter then By weathers be stretty sufred thent, This Mite Switfer an opportunity to brung that office to the Same level as our other establishments. I find on looking as the aps fumished

Hat they Shi have an afe at then you the benefit of the mint Such account is left Ether at Shelaw. a Sem francisev. Hung probably descritiment at P. + J. J. when the regulation was presented that norther fold nor Silver Shall be separated for the behight of the Superitor, when the that product of thereture, shall beless than one the loppinguito the probably be able lo punish information on the point. It was wordout

A fine many, we but it eleny. What the Awant puter we askedolle Edelman was whether Existing regulation; at that Office mained wareforther, to for under not Ituna prearry what then regulations were suchought that such an enguery somest ealther out. It was not juste the paper (sent to your) wenterend here 25th lell. Heat the important A the prints demlined Thewshow. That no down that much

ford there our from the investigation of the whicalo mattery. Showen M Eddling reply not elm. Wellier emmunisht juste that you, Very Resholful How muchin Amfan Brush, b Ry Borch.

Rec d Meh 7/70

Rec. 4/70 Hughnigton Jet. S. 1870. Som Som ermone cation enning Roy Boothy report mus promised this morning Thursin that Eddling masons papers raised the some pouts sof myning, in your muni that it sin m'ours, - alout foundays agr Induend entan myreries wille Edduna, which when ausuad, sull enable us bosolve the question themu putholioca report unte his reply is received You appear withou lohan mir unanstord the regard making of our furtinging or in Dating A. A. R. Sinderman Spenial agent

he reference to Masins
alleged in provenunt his
melting & Repining at
My assay office.

The Key 7/70

sutended that the dem Showedte discontweed at the her Ynd assay office. -However wehad better be certain about it - Blean let mehen fund Your as saily as. point as dun anying to get they my busnop off my Hodunum Hudany Pollock breda Wd. Must

Dr. A. R. Sin dermaan.
"Silver parter for the benefit
of the mint" M. 7. assy Office no such audenthere. De leowpersthwaiter ansner within I my roply. Fel 5/70 ny assay offin

Mint of the United States. Rose (Copy) Philadelphia, Feby 5- 1870 Dr H.R. Linderman Dear Sir Your note of the 4th inst, (marked "hivate") has been received We have no account here of silver parted for the benefit of the Mint "and at my request Mr Cowperthroaite examined the accounts for some years back, and has given me the result of his inquiries in the en= = closed note. His Statement is con-= noberated by Thof Booth and is no doubt correct. I am clearly of opinion that the troubles of the Ussay Office in New, York, have arisen from their dis= = regard of instructions, under the pretense of independence of the Parent Mint (Signed) James Tollock all well.

N.Y. Assay Office Feby 5-1870

Setter from Dr Sinderman Special Agt, "relative to Silver parted for benefit of the Mint;" and the reply of the Director

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The Toront I of the Chile and Office in

- Mint of the Honited States. Philadelphia Feby 5 1870 Hon dames Pollock Duestor to to Dear Sir, The five-cent nickel copper pieces sent by Mr Johnson of the U.S. Treasury at new York, have given occasion to an interesting Vemportant examination; the first of the kind that we have been called on to make. Litherto, the counterfeits of this coin have usually been casts; but we have here a coinage, with There were eight pieces. At frist sight, the general appearance as to Engraving and color, led to the belief that four were genuine, and four counterfeit, which further trial proved to be the fact. Our punished & most ready test, with all kinds of coin, is the weight, which counterfecture can seldom bring out right. The true weight is 77 to grains. Three of the

prieces were grossly in error, being under 70 grains; a fourth, suspected piece, happened to be just right. This last piece was subjected to assay, and proved to contain fourteen per cent. nickel, instead of twenty fine, the lawful proportion. It also contained a large proportion of zinc; making in fact the usual "German silver." The dies were the same as in the other Three, except the date, 1869; the others being 68 ×67. All of these four pieces have a yellowish tent; and the engraving is false and coarse, but not sufficiently so to be detected by a hasty inspection. On the whole, it is a dangerous issue; and proves that, with more skill in engraving and alloying, great pands could be hractised. The genuine pieces were close to the legal meight! In this respect we have always found an admirable conformity, of our five-cent piece, as often as we have had occasion to try it. The specific granty of the good pieces is 8.98, or might be called 9.00. - Of the bad pieces, 8.72; which in the hands of a careful meigher, would e a sure & conclusive test. Respectfully yours le pièces, except the one assayed, P. R. Ectsfelus assayer.

US. Mint I. 72 Eckfeldt assager Febry 5 4/870 Relation to five cent hickel-Copper prieer Sent by Mr Johnson of the U.S. Freakury N.G.

Mint of the United States, MELTING & REFINING DEPARTMENT.

Philadelphia, 2. Feb. 1890

Hon James Pollock Director of the U.S. mint.

Dear Sir,

I have examined The B documents referred to by the letter of Mess. Linderman & Knox of the 24th Ult. & offer the following remarks on the same.

1. The letter of Mr Edelman refers for Julues of detail to me mason's Statement, & gives some explanation of the cause of the surplus in the accounts of the Melter & Refiner. I observe that Mr E's statement that a net deficit of \$20,325 = appears in the operations on 262 millions of ounces of gold & Silver from 1854 to 1864 Inclusive" fails to express any definite relation tothe grass weight (or Handard) of both gold and silver. Upon examining the appended Tables. I find that the total lofs of gold during those years was a very small fraction of the legal allowance (only about 6 pr. ct. ofit) and that There was an absolute surplus of over \$ 3000 ox. Silver.

impossible to establish a constant of error, and therefore some compensating gains should be allowed the M. Y. R. to cover unavoidable wastage, & drawn from the Depositor.

how if there must be loss from operating on gold 4 silver, a surplus in accounts is necessarily below the truth, so that the Depositors have lost more than such surplus indicates? The followy of gains on paper, as showing quality of work, is shown by compaving two years' results in Mr Mason's Tables, say 1867 4 1868, In the former on about one million ownces of silver, the gain was 2733 ox., while in 1868 on 12 million of ounces, it was only 1221

Having touched on lofs & gain in general in the M. IR's accounts, I now state that there is no doubt that some of the surplus silver is doubtleft due to me mason's improvements, but not the whole of it. For, the approximation of the calculated gains to the actual surplus, leaves out of view some absolute lofs, without which no human being could conduct the operations on the silver. How much this absolute lofs has been no one can determine, and an estimate would be worthleft.

Mint of the United States,

MELTING & REFINING DEPARTMENT.

Philadelphia,....

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Before concluding these remarks on M- Edelman's letter Attu subjects it wokes, I must protest against one ground which he alleges for remunerating Mr mason, vix, faithpulness in the operations of his department generally." a ground which I presume Me mason himself would reject. as it involves an implication against the paithfulness of all office holders in the U.D. 2. Me Mason's letter, description of his improve ments, and monetary estimates of their value is clear. There are two processes resorted to for refining gold, in both of which gold is melted up with silver, and then the silver in The gold, as well as that added, is extracted by one process by nitric acid, & by the other by Oil of bitriol. The former is the long known quartation proces; the latter has blen in operation over 30 years. By the latter more silver can be extracted from gold than by the former, at the same

Me mason's 2nd Improvement consists in neatly combining these two processes together, so that there is a closer extraction of silver from the gold. For the purposes

remaining in fine gold is not reckoned in value, 4therefore all the silver extracted, lefs the special cost of extraction, is somuch clear gain. In mason therefore deserves credit for his improvement.

But while the fine bars Thus made answer as well for general commercial purposes, they are frequently unfitted for our use in coinage, by their yielding brittle metal, when alloyed with copper and rolled, so that we have been often obliged to remelt + flux them in order to render them fit for coinage. I doubt not, that if this were duly attended to at the afray Office, Mr Mason's 2nd improvement would be as well adapted for coinage-metal, as for commercial fine bars. In general, refining by oil of vitriol has always been found to yield a more brittle gold than refining by nitrie acid, (probably by neason of lead, to in oil of vitriol,) and to demand more careful handling to render it fully tough. If her mason had been obliged to make standard metal for rolling, oc. he would no doubt have discovered the defeet opolich I speak, I have invented the remedy.

Mint of the United States,

MELTING & REFINING DEPARTMENT.

Philadelphia,

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The 1st Improvement of Mr mason consists in deminishing The proportion of Silver to gold in the operation of refining gold by acid. The method formerly practited was to melt the gold with 3 times its weight of silver, & as the gold constituted then one fourth the weight of the whole alloy, the process was termed quartation. my predecepors in office reduced the proportion of silver from 3 to 24 and less. I reduced the proportion from 2 2 to 2 parts of silver to one of gold in The groß, and under this improvement nearly 30 millions of ounces have been refined, at a cost of several hundred Thousand dollars less, than prior to my improvement. me mason be still further improved the process, by diminishing the proportion to 1 100 filver to 1 of pure gold, thereby effecting a considerable saving in the cost of refining, by his improved process with both mitric and pulphuric acid, and for this improvement, he deserves unquestionable credit.

hether the saving which ME mason has effected equals all that he claims for it, may admit of some doubt when The figures are narrowly examined. For example, the proportion of Tarting acid which we employ to extract Lilver is from 24 to 23 parts for each part of silver, and not 3 to 1, our amount being usually about 24. again we only give 11½ ets. for l'arting acid, & not 12 ets. as Mr mason has estimated. Making however fair allowance for these tendencies to slight exaggeration, There is no doubt that a considerable saving is effected by his improvements on the ordinary methods of refining Whether Mr Mason should receive compensation for the saving he has effected, is how much might be due for Them, it is beyond my province to determine, but it will always give me pleasure to hear that a Public officers is compensated for important and unusual saving effected by his knowledge and study, altho not for his mere faithfulness, which is a duty. In this light therefore, I think that Mr mason might very properly be fairly compensated. very truly yours Lat Booth M. 4R.

Mint of the United States,

MELTING & REFINING DEPARTMENT.

Philadelphia,

186

The 1st Improvement of mr mason consists in diminishing the proportion of Silver to gold in the operation of refining gold by acid. The method formerly practised was to melt the gold with 3 times its weight of silver, & as the gold constituted then one fourth the weight of the whole alloy, the process was termed quartation. My predecepors in office reduced the proportion of silver from 3 to 23 and lep. I reduced the proportion from 2 2 to 2 parts of silver to one of gold in The groß, and under this improvement nearly 30 millions of ounces have been refined, at a cost of several hundred the cost.

Thousand dollars lefs, than prior to my improvement.

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hether the saving which Mr Mason has effected equals all that he claims for it, may admit of some doubt when The figures are narrowly examined. For example, the pro portion of Tarting acid which we employ to extract Silver is from 24 to 23 parts for each part of silver, and not 3 to 1, our amount being usually about 24. again we only give 112 ets. for l'arting acid, & not 12 ets. as me mason has estimated. making however fair allowance for these tendencies to slight exaggeration, There is no doubt that a considerable saving is effected by his improvements on the ordinary methods of refining Whether Mr mason should receive compensation for the saving he has effected, or how much might be due for Them, it is beyond my province to determine, but it will always give me pleasure to hear that a Public officers is compensated for important and unusual saving effected by his knowledge and study, altho not for his mere faithfulness, which is a duty. In this light therefore, I think that Mr mason might very properly be fairly compensated.

Very truly yours Lat Booth M. 4R. United State allay Office New York Jany 20-1870 Dr HR Linderman Special Agent J.D? Washington Dear Sin I have considered your letters of the 4 = and 18 = inst; the former relating to ill Masons improvements in the refining Operations of the Assay Office," and the latter request= = ing me to explain the origin of the surplus of both gold and silver returned by the Metter & Refiner over and above the amount which had been charged to him, and to State whether the present regulations insunto depositors respectively full returns for their bullion In as much as the two subjects referred to in your letters, are closely allied to each other, I have thought it best to consider them together. For a proper understanding of the improvements in the refining operations, I refer you to the lasons letter to me, herein inclosed, accompanied with

his report on this subject. As he has presented his case so fully and clearly, I deem it thefortalous Superfluous for me to enter into further particulars It may be proper, however, to state that the striking feature to my mind is, that during ten years of the conduct of the Melter & Refiners department, as gathered from the enclosed statement of gains and losses, since the commencement of the business of the Office, a net deficit of \$ 20.325 appeared in the operations upon 26/2 million ounces of gold and Silver, while Mu Mason's administration of fine years, (the last four embra= = cing the period of the use of his two improvements, produced a Surplus or gains amounting to \$37, 134 in the operations upon 10 million Ounces of gold & Silver. How for this great difference in the results of the two periods should be attributed to Mullason's two improvements may be determined appragimately from his detailed report. In addition to this cause, I am satisfied that his usual skill, fidelity, and industry, have secured from these methods whatever profit thy are capable of yielding, so that he is entitled to a proper remuneration from the

Government not only for the use of his most valuable methods of refining, but also for his faithfulness in the operations of his department generally. As respects the surplus in Silver of 22/8 200 ounces, it is replained chiefly by the practice of Settling with the depositor for the Silver in his gold, upon the basis of refining the gold to 990 the, while our Melter & Refiner has burn able to bring it up to 997 the, Showing a Saving to the office of y the on all the gold from which silver is parted.

The gains from deposit melting and from fractions in Sundry weighings and from the report of finenesses, the fractions between the half and whole millieme being rejected, constitute a partial explanation of the Surplus both of gold and lilver. The Chief Source, from which the Surplus of gold arises, is owing to the small pations of gold, found in a large number of our selver deposits, too small to be reported for the benefit of the depositor, being excluded by the legal limit for parling. Hoping that you will find I have

answered four sevual inquiries to your satisfaction, Jana Sana bery truly rinesi chille by the practice + Kespectfully Jours (Signed) Geo W Edelman Supt ad-interim able to bring it up to ago the sharing a larency below is parties. The gains from deposit militing and now paction in Sundry Exceptings and from the report of forumers, The mactions between the half wick whose michience occing repeted conti and librer. The chilf some from which the Suffer of order arises, is origine to the Small poten of golder france in a large member of our biline depicts for small to be

(60/y) United States Assay Office New York January 18= 1870 Guo W. Edelman Ey Superintendent & In answer to your favor of. 5 th inst conveying the request of Dr 4R Linderman, Special Agent of the Treasury Dept for a description in detail of the modifications and improvements of the ordinary hitric acid process introduced by Me Mason your melter Refiner in the refining operations of the assay Office," I beg leave to submit the accompanying statement showing also the amount saved by their use in this office alone during the past four years, to have been one hundred and hinetein thousand, four hundred and fifty seven 89/100 Dollars (\$ 119.457,89) This result more than justifies the estimate of lune 29= 1866, that the saving that would be effected by their inhoduction in all the govern= ment establishment would amount in one year to about \$75,000". the Subject having been brought to the

notice of the Freasury Department, a letter of which the following is a copy evas received of the former Superintendent. Treasury Department February 20 7 1867 Your letters of the 16 = and 18 = insts enclo= = sing communications from Undrew Mason relative to the improvements in the process for Separating gold and Silver introduced by him into the New York Usay Office, and asking for compensation from the Government for benefit derived from their use, have been received. Copies of your letters, and the Communications of Mr Mason will be Submitted to the Fortieth Congress with the request that a reasonable appropriation may be made to the Mason for his improvements Very Respectfully Ussistant Secretary " Having no evidence that the intention of the Det= = artment expussed in the foregoing has bun carried ento effect, it does not seem improper, while answering Dr Lindermans inquiry, to ask that its attention may be again Called to it. I do it the more

fully because of the knowledge of the subject

possessed by both of you.

Bery Respectfully

(Signed) And Mason

Melter & Refiner

and and and and

(00M) Thatement of two improvements in the mode of parting gold and silver, introduced in the U.S. assay Office, New York, by Andrew Mason Melter & Refiner, and of the Saving effected thereby during the four years from 1866 to 1869 incl. Almost all the gold deporits contain sufficient silver to make it profitable to separate the two metals. This was done by melting them adding twice their weight of silver, and granulating the mixture which was then subjected to the action of Nitric Acid. The silver was dissolved and the gold (remaining undissolved) being com--pletely feed from the Nitrate of Silver by washing, was pressed, died, melted, and cast into bars. After precipitation as Obloride from solution by salt, and the reduction of the Chloride by fine, the Silver was treated in like mannet. As these gold deposits ranged in fineness from 970 to 33 t thous., the mixture prepared as above for granulation to varied greatly in character. After having carefully ascertained the lowest proportion of silver to gold, at which the acid would freely dissolve the silver, by obtaining the fineness of the various deposits, assort. ing them, and adding just enough silver to each class (readily done by the use of a table) to make all the mixed metal of the Said proportion, several very desirable results have been gained. The quantity of silver requiring to be melted, mixed, granulated, dissolved and subsequently recovered from solution has been largely reduced. By reason of the gold retaining, to some extent, a spongy Consistency, the liability to wastage of gold has been very much bessened; - while by affording more facility for the action of the acid the last portions of silver, the process has been more thorough m its operation.

Under the impression that a considerable margin was requisite on account of possible want of mixture, the proportion first adopted was that of 2 parts silver (or other alloy) to (one) I part gold (pure); but the experience of more than a year has demon--etrated that 1.85 parts silver to I part gold morks well always the saving effected by this change will appear by the follow -ing Calculation made from the records of the department. During 1869 - 485200 ogs Jola Bullion, averaging 813.2 thous. fine was operated on. By the old process it would have been melled with 970400 og silver " " new " " was " " [639307 " " " making a difference of 331093 " " This would have required for its solution in the oldway 993279 of Nitric acid which would have cost at the current price (68112 lb, @ 124) - - - #8173.44 The saving in other materials and labor that would have been required for the recovery of the silver from solution, and incidental to the process generally, cannot be fixed definitely; but as the entire Oost of these is much more than twice that of acid, it is less than a reasonable estimate to put it down as By calculation in the same way, the saving for the pre--cedding three years was as follows -In 1868 on 474958 og gold Bullion, averaging 831 thrus fine 14355.26 1867 " 329313 " " 828.4 " " 8340.52 1866 " 801039 " " 848 " " 22107.88 Making the saving during the four years \$ 61150.54

By the old process the granulations were subjected to the action of Netric acid in two separate charges The Ind. improvement consists in the substitution of a boiling in strong sulphuric acid for the 2nd Charge of Notice acid. This has effected a further saving of acid, and ex -tracked also full five thousandthes of silver additional, raising the fineness of the gold to that of European Bars (about 998 m) The following calculation will show the amount of saving effected in this may. 639307 030 On 1869, the silver added to the gold Bullion was, as etated above, The silver in the bullion itself, and taken out by refining 726546 "Die it to 993 thous, was 485 200 g x 179.8 thous (993-813.2) Making together This would have required for solution in the old way 2179638 oz. Nit. acid. (3 parts Acid for 1 part Silver) 1736445 " " " It required by the new way (2.39 parts for I part silver) The difference, 443193 og Netric acid would \$ 3646.92 have cost (30391 lbs @ 12d) Deducting the Cost of boiling in Sulphuric acid (426546 og Silver x 0.4 = 290618 og acid) 19929 lbs @ 3,00 \$ 627.76 3019.16 It leaves a net saving of acid in 1869 of By a similar Oalculation the Saving in this way in 1868 mas 3068.48 2222.02 5212.60 Making the saving of Acid by this change in the four years 13522.26 The silver recovered by the use of this improvement in 1869 mas (3945640; fine Gold x 500) 1972.82 which at \$1.36 per og

\$ 2683.03 (\$1.20'2 per Standard ounce) amounts to Deducting the additional expense involved 4715 og Nitrie acid (323 lly @ 126) \$ 38.76 789 " Julph. " (54 " " 315) 1.70 2603.81 Other materials Plabor 38.76 It leaves a net gain in Filver Coin of 2605.30 By a similar calculation the gain for 1868 was 1800.37 4450.61 " " 1866 " Making a gain of silver coin in the four year of 11460.09 This amount (\$11460.09) is more than justified by the surplus Silver delivered to the Freasurer in these years (\$14590.35) a comparison with the account of the ten years before the change indicating that more than one half of the difference between these two sums should also be credited to the improvements. The surplus gold has now become an item of magnitude in the accounts of the office. A small portion of this is obtained from Sweepings of the deposit melting room; but it is mainly due to the many fractional gains in the fineness and weight of deposits, and the gold present in many silver deposits in too minute quantities to be reported. Not only did all these disappear under the old system, but it was found necessary to cover by the legal allowance for wastage an actual average annual deficiency during the ten years previous to the introduction of these improvements of 115.66 oz Ine gold, worth at \$20.67 per of \$2390.69

During the last four years, the reduction of the wastage has not only overcome this previous annual loss, but enabled the following amounts to be paid to the Treasurer in excess of what was charged to the Melter & Refiner in account. In 1869. 368.69 og Fine Gold ralu \$ 7620.82 "1868 237.30 " " " H904.99 "1867 339.40 " " " 7015.40 "1866 166.85 " " " 3448.79 1112.24 " " " #22990.00 By adding these several amounts as stated a saving is shown in expenditures of \$ 74672.80 And an actual gain in Gold & Silver of 34450.09 109122.89 Adding a premium of say 30% (less than the average) tothe 10 3 3 5.
It makes the saving by the introduction of the two
improvements during the four years, in Carrency, of \$119457.89 U.S. Apay Office New York Fring 18th. 1870.
(Signer) Andre Mason

Melter & Refiner's Wastage, U. D. Alsay Office

gold Bullion					Lilver Bullion			
Period	amt. opera- ted on	lost.	amt	loss in 1000s	amount operated on	aurt. lost	ant.	lofs in 1000 s
	St. ounces dec	ox. dec	ox. dec		Std ox. dec	02. dee	ox. dec	
oct 10) Dec. 31 1854	164 026.175				541 103.6g			
Jan. 17 Dec. 313 1855	1 125 262.571				2 437 650.00	1,806.96		0.741
" 1856				0.218				
" 1857	1 167 758.397		358,661		1 954 668.81		894.29	
11858	1 029 110 .971		171.270		3 902 2 11.54	(1.5 /)	113.31	
" 1859	263 009.418		146.423		1 048 880.00	818.19		0.780
Jau.1.1860 to mar. 31. 1861	263 007.418 1 860 947.340	354 214		0.190	1 001 916.11		674.00	
Opr. 1 to } Dec. 31 } 1861	2 426 667.292				1 679 972.42			
	9 096 545,948	1978.257	676.354		15 365 794.93	4147.48	6475.74	
1862	163 128,320		123.326		716 808.42		934,24	
1863			129.948		518 930.41		376.47	
1864					526 127.22			
	9 488 576.534				17 127 660.98			
1865	382 546.656	98.223			1 051 084,31		1802 99	
1866	845 984.468		185.396		2 197 912.31		5755.66	
1867	301 778.693		377.117		998 396.54		2733.18	
1868	435 069.501		263.674		1 502 450.19		1221.13	
			409,660		1 877 358.45		2210.2	
1869	2 444 348 .387		1235.847		9 627 201.80		13,723.21	
			98.723					

ny assay office Papers relating to andrew Masni in-· provements in melling a Sefring of accompanying Letter of Sec; measure of 24th also Pay. Booth, soply

Trensury Department.

Sis:
In view of the importance of the Dubjects of refining, wastage to, and desiring to obtain as much information in relation. thereto as passible before Submitting out report as to the management of the United States assay Office, Hew Gook, we have thought in proper to request that you will examine, in Connection with Professor Noods, melter & Refinet of the Muck, the following Dakens:

Dirik . Setter of S. It. Edelman actg Supt. Uf. assay office dated 30 therestant. Scand Letter of Andrew Mason Melter & Refiner dated 18th mistant.

Third, Statements not 1 1 2 Enclosed therein_

and present to us as early as convenient any views or Suggestions You may deem proper to make in reference to the information presented by M. Edelman In her mason in reply to our Engrewee on the following points big:

"a description of Mr. mason's improvements in the refining operations

of that office, and an explanation of the Surflux gold In Selver returned by that officer, and also "whether existing regulations assure to the depositors respectively, full returns for their bullian" at said office. Please return the papers Enclosed. Very Respectfully Yours A. R. Linderman (Shear a gout T. N.) Hon James Sollock & Director of the Muik & Philadelphia Pa Des Complet of time

SEc'y Freasury musting opinion upa alleged in provements in refining operations by Andrew Mason, Melter Hefiner y N. Y. assay Office -(ale Mapaper reformed to Prop. Boother refely) Res Jan 25/70

United States Assay Office New York, February 1/1870. Records of the second of the s of this Office, has completed the settlement of his account for 1869, with the following highly satisfactory (Mole ant, del. & him during the year, \$8,345,291.21 Amount returned by him on settlement 8,352,912.91 Oilver Bullion. Gold Ourplus, \$ 7,621.70 Mhole amt. del' to him during the year \$2,181,990.64 Amount returned on settlement 2,184,562.56 Oilva Durplus, 2,571.92 Total Suples for the year \$ 10,193.62 The average finench of the fine gold band manufactured at this Office during the year is 997 AM. This gives a painted of refined, inasmuch as the Settlement with the deposite is on the Easis of 990 ft. This is nearly

Sufficient of itself to account for the Durplus in the Silver, without reckoning slight gains from Fractional differences in weight & fineness in four of the Mid, or those from deposit melting. These latter Dource of gain appear also in the gold Ourplus, besides the minute portions of gold contained in many of the Silver deposits, which, under the law are not credited to the depositor. I send, herewith, a copy of Mr. Mason's Statement in regard to the two improvements introduced by him. The report was furnished by him in vespouse to a request of Dr. Linderman, Openial Agent of the Treasury department. In reading this report, I notice that Mr. Mason has found, in his parting operations, that the proportion first adopted of 2 parts of Silver (or other alloy) to 1 part gold (pure) could be Changed to 1.85 part Silver to 1 part gold, and thereby an additional Daving to the government could be effected. To view of this one feature, which, I presume applies equally well to the operation, in all the Mint Institutions, I have thought it important to send you a copy of his entire report, believing it will commend itself to your Lavorable Consideration not only on account of the Canefil the government derives from the use of these improved methods, but also as bespeaking, in his behalf, such service as you may feel justified insrending, in order to obtain for him a suitable remuneration.

> Very Respectfully Now Obs Servet Eses. W. Edelman Sup drad-interim.

Slatement of his improvements in the model of builing Gold o Silver introduced in the United States Array Office New Hork, by And " Mason Mel-ler or Refiner of the Raving effected thenby during the four years from 1866 to 1869 inclusive.

Almost all the Told deposits contain sufficient Silver to make it profitable to deparate the mo metals. This was done by milting them, adding the misture, which must be silver, a granulating the misture, which must be subjected to the action of white seid. The Silver was dissolved, of the Isold remaining indissolved being completely freed from the whate of actor by rashing, was present, dried, making the white freed from the whater of actor by rashing the chloride was ablow from equation is east, of the reduction of the chloride was manner. It is not sold deposits ranged in finences from you for 334 thous, the mishing prepared as a fore for granulation, we, varied greatly in characture.

Insporting of Silver to total at which the lowest sould fruit dissolve the Silver of obtaining the fininess of the various deposito, according them, & adding just enough Silver to each class (madily done by the use of a table) to make all the mixed metal of said proportion, several very desirable usualto have been gamed.

The quantity of Silver regaining to be melted, mixed, granulated, dissolved, a subsequently recovered from Colution, has been largely reduced. By reason of the rold retaining, to some extent, a epongy consistency, the liability to mustage of old has been very much lessened; while by affording more facility for the action of the acid on the last portions of the Silver, the process has been more thorough in its operation. Muder the impression that a considerable margin was requisite on account of possible want of mystine, the proportion friel-adopted was that of 2 parts Silver (or other alloy) to I part told (pure); Int the experience of more than a year has demon-Challed that 1.85 parts Silver to I part told morks well always. The saving effected by this change will appear by the following Calculation made from the records of the department: During 1869, 485,200 Og. Gold bullion, averaging 813.2 thoms. fine, was operated on. In the old process, it would have been melled with 970,400 Silver " " new " " mas .. 639,307. " making a difference of 331,093 This month have regimed for its colution in the old may 993,279 og. Situé acid, which muld have cost, at the current price (68,112 lbs @ 124) \$8,173.44 The laving in other materials, o labor, that mould have been regnized for the neaving of

Brought formend \$8,1.73.44 the Silver from solution, & incidental to the process generally, cannot be fixed definitely; but as the entire cost of these is much more Than truce that of acid, it is less than a making a saving in 1869, by this improvement, of \$16,346.88 By calculation in the same vary, the Daving for the preceding three years mas as In 1868, on 474,958 og. Gold bullion, averaging 831 thous, fine#14,355.26 " 1867, " 329,313" " " 828.4" " 8,340.52 " 1866, " 801,039" " " 848 " " 22,107.88 making the saving during the form years . . . \$61,150.54 By the old process, the granulations more subject-ed to the action of Nitrie Acid in two separate The 2nd improvement-consists in the substitution of a boiling in strong Sulphunic Acid for the 2nd Charge of Nitre Feid. This has effected a further Daving of acid, a workeeled also full five thousandthe of Silver additional, raising the fineness of the told to that of teuropean vars (about 998 sm.). The following calculation will show the amount of laving effected in this may. In 1869, the Silver added to the Gold bullion mas, as stated above,. 639.30703.

Omnght formand. 639, 307 og. The Silver in the bullion itself, & taken out by refining it to 993 thous, mas 485,200 og. x This muld have required, for colution in the ald may, (3 parts acid for / bout-Silver)... 2179.6380g. Nitridix It required by the new many 239 parts acid for / part Selmi) 1,736,445 " The difference, 443,193 oz. Nitre Seid, mild have Deducting the cost of boiling in Sulphince acid (726,546 g. Silver x 0.4 = 290,618 g. acid) 627.76 19,929 los. @ 3/5 d Of leaves a net saving of acid in 1869 of .. \$3,019.16 Of a similar calculation the saving in this may in 1868, mas 3,068.48 2,222.00 5,212.60 , 1866, + making the saving of acid by this change in from years \$13,500.26 The Silver recovered by the use of this improvement in 1869, mas (394,564 og. Fine Gold x 1000) 1.972.82 og. which at \$1.36 per og. (\$1.22 \frac{1}{2} per claudad sunce) ... \$2,683.03 amounts to... Deducting the additional expense involved 4715 og. Siture Seid (323lbs. @ 124) ... \$38.76 789 " Sulphune " (54 " @3/154)... 1.70

Brought formul, \$2,603.81 Ana emilar calculation; the gain for 1868 was ... 2,605.30 . 1867 " ... 1.800.37 1 1866 " . . . 4,450.61 making a gain of Silver Coins in the four years of .. \$11,460.09 This amount (\$11,460.09) is more than justified by The emplus delivered to the Treasurer in these years (\$14,590.35); a comparison with the account of the len years before the change indicating that more than one half of the difference between these two sums should also be endited to the improvement. The emplus Gold has non become an item of magnitude in the accounts of the Office. A small ontin of this is ablamed from the Smeetings of the deposit melting room; but it is mainly due to the many fractional gains in the fineness of neight of deposito, of the Fold present in many Silver deposito in too minute quantities to be reported. Not only did all these disappear under the ald eyetim, Int it was found necessary to coverly The legal allowance for wastage an actual annual deficiency during the ten years previous to the introauction of these improvements of 115.66 og. fine Sold, moth at \$20.67 per og. - \$2,390.69. During the last-four years, the reduction of The mastage has not only overcome this privious ansmal loss, but enabled the following amounts to he baid to the Treasurer in excess of what was charged to the Melter o Refiner in account:

In 1869 - 368.69 og O'ine Gold - Value \$7.620.82 4.904.99 " 1868 _ 237.30 " 7.015.40 11 1867_ 339.40" , 1866_166.85, 3,448.79 22,990.00 1,112.24, On adding these several amounts as stated, a saving is ahown in expenditures of ... \$74,672.80 And an actual gain in Gold & Silver of ... 34.450.09 Orgether. \$109,122.89 Adding a premium of Day 30% (less than the arrage) to the 22, 10,335.00 It makes the saving, by the introduction of the two improvements, during the four years, \$119.457.89 in curricy, of M. S. Assay Office. Newbork, Jan 18 to 1870.

NEW York Assay Enclosing, Maternat of two in · provements in parting Gold Silver by Ander Mason, MAR ny assay office, the faving Effected in 4 years from 1866 to 1869, inclusions Received Treh 8, 1870.

Philadelphia Tebruary 7.4 1870

The Undersigned Surveyor of the Port, Naval Officer, and Director of the Mint, at Philadelphia respec-= Efully report: That in accordance with the instructions from the Secretary of the Treasury, dated January 25-th 1870, and the requirements of the act of august 6# 1846, entitled Un act to provide for the better organ=
= ization of the Treasury, and for the collection, safe- Keeping, transfer and disbursement of the public money," they presented themselves at the Office of the Assistant Treasurer of the United States, at the beginning of business, on Wednesday, the 2nd day of February 1870, contin= = uing the investigation on the 3th, 4th and 5th, and made a careful examination, in the manner prescribed by the instructions of the Secretary, of the books accounts, and moneys on hand, in the Office of the Assis= tant Treasurer, with the following result:

They find the assets of the Theas= -urer to be as follows

Assets		
W. S. Notes	352.531	00
National Bank Notes	68,650	
Fractional Currency (new issue)	223.509	66
Redeemed 59 pieces (nickel)	10.525	00
U.S. Demand Sotes	75	00
U.S Gold certificates	402,340	
Gold Oven	3,682,353	00
Silver Coin	87.043	83
Redeemed Legal-tender notes	27.999	00
Temporary loan certificates		
and Interest	205	06
Coin coupons-payments on		
Interest account		00
Interest on Temporary doan		
Interest on Temporary doan certificates 7-30 Coupons	2./2/	00
7-30 Coupons	\$ 5.256.167	47
	5.256.167	02

Amongst the assets, returned as Silver coin, they find the Sum of \$235.00 in hickel, which was received by the present Freasurer from his predecessor, as silver-said nickel being, as represented the ac=cumulation of Small Sums received from bustom receipts, as Silver

They find the Liabilities of the Freasurer to consist of the following items and amounts:

Liabilities

Due Freasurer United States

General Account

Due Freasurer United States

Fransfer Account

Due Tost Office Department

Due Disbursing Officers

Due Interest Account Coin

Due Interest Account States

Office Expense age

4.706.302 74

33,08767

65,26581

392,90880

46,88700

20,34000

9.37500

85,256.16702

Having made a careful Examination of the books, accounts, and returns kept in the office of the Assistant Treasurer, they find that the liabilities of the office agree with the assets.

They take pleasure in reporting that the business in the Office of the Assistant Theasurer, is in their judg=
=ment, transacted with accuracy and fidelity-

Terry Respectfully

(Signed) & O Goodrich
Surveyor of the Port

Disconstruction

Sames Tollock
Director of the Unit

Hon Geo S. Houtwell Secretary of the Theasury Washington D.C. To the Sec'y Breaking (bopy) Report of Monthly Court tryamin alin of miny of Assistant Keasurer U.S. by Surveyor of the Phs, Alineta of the allint

Fet. 7.1870

Westa Johnson County Februska Superstendent of the Philadelphia Sin I Send you & Speciman enclosed that we supose to he gold bust you will under stand you xxxxx will please to inform me by letter if gold or not if not you please to inform me what it is if it will encrock on your time too much to test it you will please hand it over to Some Gentleman of your acquaritance Capable of testing it and let him give me the required information inclosed you will find & Stamp for return Mail by so doing you will Confer & favor on me your Obedient Servant G. A. Balland DS please Finect to Mesta Johnson Country from dint taken from the earth here in this County Mica with vron

Ga, Ballard Vesta, neb. Feb. 17-70. Enclosing speamen dust. mica with now ansid Feb. 14/40

U.S. MINT FEB 8 1870 RECEIVED! Thilada, Feb. 8.1870. of you entered rowdering abell for the truck please de se at once, or that I may forward it with the bill for of the trosmener. The bell Should be made against the United States and in duplicale. It ought also to be recepted. I enclose a Traft of the certificate which I have drawn in whaten to the conrection of the bolomes. I suppose you the source and suggest will right, as use wer all presset. I suchose al so the de certificate dear long the heaven as to the accuracy of the weights. It I ruppose it will not fix that you and he sign it

I did not see the weight. Hears 19, Turn bothe contesporate, and do me de favor to processe Me. Incordens ref. policie to the our. Your Trug Caco Englis Houfames Pollook, Director of the Mint, Philosophia,

Ges Eyster En Treasurer Ut Mint

In reference to bite



Thil Sheridaw Kansas 12 th Febry 1870 Superintendent, United States Mint; Philadelphia, Pa. Dear Gir. He shipped you to day, by U.S. Exprese, a lat, or quantity, of Gold, received for Au Musico, said to be worth \$ 154x you will please coin the came and advise us in regard to its actual value, so we can draw for and. Your frompt attention in case, will be highly approvated by, Your abedt linds to. Henduson,

Webster Ulusick +60
Phil Sheridan
Kansas
14 March 1870
Package of gold Shipped

manch \$4th 1870
We have received no such package
here
24lo,

Office of the Assistant Treasurer of the U.S. N. 3963 Philadelphia, Feby 11 " 1870 I Certify, That Geo Eysten. Essas m. 8. mint-the ha This day deposited to the credit of the Treasurer of the U. S. Seronty Fire Thomsand ______ & Dollars, on account of Profits on 123 x 5 ct Comis for which I have signed triplicate receipts. Ellotorgall \$ 75:000 Assistant Treasurer U .S.



Treasury of the United States,

Washington, February 15, 1870.

Sir:

Swill thank you to inform me whither the circular of the Director of the Mint, relative to the function of the Director of the Mint, relative to the function of mickels-copper cents, dated May 30, 1867, is still in force and, if it is, to forward to me about fifty copies of it, if they can be exactly about also extern it a favor to receive a suffly of any other circulars from the Mint, which would be of interest to this Office, if there are any such now in frint.

Ston James Pollock, Estiman Francisco Stilled Mink, Francisco Vol.

Treadurer U.S.

Wants 50 Nickel Cosculars - a al.

FEB 16 1870
PECEIVED

Second National Bank

Seavenworth, Kansas Febry 15 1870

The Director of the minh

Philadelphia, Pa. Fir: Dand desirous of obtaining one of each of the Twenty five and Fifty cent Gold coins issued by the U.S. if it is possible. Will your be Kind enough to inform me where I can probably get them

Yours with respect

Edmund Burr Leavenwork Ks Inquiring for 50+25 cent goldcoin Feb. 15/70 Answered Feb. 18/70.

Invoice No. 7.

Statement of Sullion transmitted to the UNITED STATES MINT, for Loinage, pursuant to Act of March, 1855, by Soul Sullion transmitted to the UNITED STATES ASSAY OFFICE.

	2721	вохв	S No.	/	<i>(</i>	1	CONTA	AINING	12	ВА	RS.	
Descr\ption.	Numbers		Ounces.	dec,	Fineness.		Description.	Numbers.	Pieces.	Ounces.	dec.	Fineness.
Merrida Ba	14/2	3	571	10	9535	W						
	necoto.	5		1 1-	11/4							
Therada Dan	37	24	745	83	970	V						
toake Ough	73		105	70	0402	レ_						
Wevada OSan	4	8	1007	00	980	V						
80	0	8	1000	90	909							
111. (8) 11,	Q		1000	100	991	V						
well day	10	9	116-	105	8005	0						
010	0	af a	12/1/2	135	001	V						
Coloned off	8/2	3	57/0	85	8316							
Shear Oxoll	3	1	107	440	701	1						
December 160	1 11	1	0/4	15	8046							
Sent I I I	6	2	36/	90	9085	-		The Later of the l				
On Bour	7	3	469	35	921	V						
Men Bass	91	3	5119	60	9975	/						
Missed Toin	17	5	1001	35	8922	-						
20	9	5	895	80	885							
0)	100	24	7/1	60	8972							
Mem Choff	115	9	1434	85	90002	V						
en Source.	6	14	860	10	900	/						
a l	-/	8	14107	75	901	V						
00	. 8	8	11/95	10	9023	V						
0	9	7	18/10	65	9000							
11'2 1900	100	1	135	15	870%	1						
ween com	100	1/	613	85	912	1						
ette Dell		4	1		1,2	P		ou	2001	ce. S	D	
		1000	2659	50	= (Olh	and My	11231	23.3	3301	164	B
						10			in		9	6907.1
		-	1	-				Con	Show	200		131/0
								- Pring	Too!	1	X	

Mint of the United States,

MELTING & REFINING DEPARTMENT.

Philadelphia, 18. Felo, 1870 Hon. James Pollock Director of the U. L. Mint. Dear Sir, In response to your request I have made a caveful examination of the amount of business transacted in the mint in the various opera Tions required for Refining & melting Gold & Silver, and for preparing the Copper allays for Cents-Coinage; and present you herewith Schedules of the force of men employed on the several operations, & of the amounts of bent boinage for the last six months, Schedule A. embraces the force of men required to operate on Gold & Silver, both Mething & Refining, with the nature of the operations specially distributed to individuals or groups of men. If this force I would remark that I think the present force engaged is not more than equal to the econount of business in gold & Silver transacted in the Mint during the

past year, of that a diminution of this force would result in detriment to the Public Service. It is true that the number of hands might be smaller (by 2 or 3) for the average business of the year, but then, the business demand is irrequ lar, being atternately flush & spare, & if at any time the demand is active, a less force would be insufficient to operate in a short time. The attempt to spread business over a longer space of time, in order to work with less force, the attempt to equalize the irregularities of the money market, would certainly be regarded as false economy by the public, especially by all dealers in bullion of their numerous allies, the brokers & others. I have seen no reason in the expevince of years to change the opinion I formerly entertained that the working force in gold & silver should always equal emergencies, I not be laced tightly to an average. I would therefore deem a less force them we now have inadequate & inadvisable.

Schedule B. represents at a view the present force employed in bents melting, 4 the number to which I think it may be safely reduced.

On this I would remark that about the time you

Mint of the United States,

MELTING & REFINING DEPARTMENT.

Philadelphia,

186

entered upon the Directorship & previously the average daily demand for bents of the several denominations, was about \$5000; and to meet this you diminished the previously large operative force to what seemed necessary for the then demand. Subsequently as the demand appeared to be regularly diminishing, you were considering the propriety of diminishing the force still further, on the ground that you saw no prospect of the demand again rising to its former standard.

Thave prepared Schedule C, partly derived from the Paying blerk, exhibiting the daily average demand for bents boinage, for the last six months. You will observe that bythe 1st of August, the demand had already fallen to about one half of what it had been, that from that time it has been diminishing with tolegable regularity. While I think that in general, our working porce should equal contingencies, it appears to me that we shall be sufficiently prepared for contingencies, likely to arise

In the Centage Coins demand by diminishing the operative force by about one half, as is set forth in more detail in sched. B.

Very truly yours La C Booth

Melter of Refiner

Schedule A

Horce employed in Metting & Refining

Gold and Silver.

Office. aced	ountant	,	
	k & Weigher	,	2
	Wetters	2	
	Helpers	2	4
Bullion Metting	Foreman (General)	1 hu	
	Melters	4	
	Helpers	3	
	Hoister	1	9
Refining & Refinery		3 mogu	
Cent Cleaning	Cent Cleaners	/	
	Presiser & Dryer.	/	5
Sweep Cellar	Arinders & Sifters	2	2
		/	,
Plumber Has fitter	70	/	,
Watchmen of Gold		2/	2
Gate Keeper.		,	/
month pg. 24	63.54		27
	Cent Melting		

Sched

	Force employed			
	Present	Proposed		
Foreman	,	,		
Melters	8	4		
Helpers	19	9		
Brichlayer	,	,		
Bricklayer Gate Keeper				
	30	16		

months for \$2439.84

Schedule C.

Average daily Deposits for								
Nicket-Copper & Bronze Coinage.								
1869	Value	Weight	Value	Weight	Value	Weight		
august_	\$ 2283	Weight Weight 503	1 292	200	2575			
Sept_		388	521		2285			
Och.		244	320	219	1427			
/	697	154	271	186	968	(340		
Dec.	885	195	250	171		366		
Jan.	494	109	144	99	638	208		
Average per day for the last six months 6/2825								
	"	" "	" "	" three	,, 3	1914		
				-		305		

Prof 1 6. Booth Report in and busing, make and Expended, of Cent & Jenual Comago no. 9 Emplayer opay from 1st July 1869 2 31er January 1870

Res Feb 18/70

Mint of the Wnited States,

MELTING AND REFINING DEPARTMENT,

Philadelphia, 21. Feb 13 18670.

Hon. James Pollock

Director U. J. mint

Dear Dir.

at no Delle ker's re

quest that I should state to you, what The deficiency of my Bullion fund in Silver, may be, in order to the more efficient working of my Department of the mint, beg to state, that as nearly as I can estimate it, I have about \$30,000 in fine Silver; of that this amount should be nearly or quite doubled, in order to make more rapid returns tothe Treasurer to meet the Demand for coin of fine bars, with as little delay as popible.

> Dery truly yours Late Booth ? m.Y.R.

J. C. Booth u + R Or S. Mint

\$ 30,000 addition : bellion: fund of the ellion: regiment.

> Rui Fish 21/70

Res han 26/78

Cairo Ollo Feb 23 d. 1870

U.S. assayers office D.G.

mineral, and am angines to know pust.

what it is can you please inform me? Where

shis came from, near here, shere exists large

quantities, Haping to hear from you som

I am very resp.

a m austin

Contain 79 per cent lead.

Allan, tin Cairo, Ile.

Sends Trecione

aus Mach 1/70

United States Senate Chamber.

Maskington. Heg. 24 1870.

Dear Si. My actintan has been acticado to some talement in the public punts, as to the mudence of counterfuls among the emande Com Circulation. mu for fam me wet you view br. to the proportion of counterfects form among The amuse cows, and the minha form among the Imace notes. for puter our I premie gui gon Mulinter of Strenation wife the rule of lotte than can be han & any other punt i official, am y you tum hunt I Mare be flow to hear from In who it Hor Sa. Pourier. Ding Most. Johnshill

Hanjohn Scott

Inquire, probable proportion y come. - to fit in Somale Com Circulation.

and Ich 28/7.

Red Fish 25,



Trensury Reparetment. February 26 th 1840

Sir: Anclose herewith a copy of a letter of the Danish Minister resident in this City. who desires to obtain for the Cativet of the Danish Jorenweil, a collection of the medals in bronze which have been struck by the Government of the United States. The printed arcular containing the list of medals to be obtained at the Ment has been transmitted to the Danish menuter, who will correspond with you in reference thereto; and I will thank you to furnish him such medals as he may Delect for the Copulagen Collection, at the actual cost thereof. I desire also to call your attention to the fire medals mentioned in the letter of the Danish minister, now in Bosessien of the Danish Dovernment, a portion of which do not seem to be comprised in the collection at the much, with the suggestion I that copies may be obtained, if you think it desirable to do Very Restretfully

Becretary of the Freusury Hon James Sollock & Director of the Mint & Philadelphia Pa





FEB 28 1870
PECEIVED

Danish Legation. Washington. D.C. Hebmang 23 d. 1870.

my dear her Secretary.

Take the liberty to put in writing the request, of which I spoke to you yesterday, and for the furtherance of which you brindly promised me to do what is possible.

Among the scientific collections of bookur hagen we passess a very complete one of coins of medals from different countries and different ages. The limited States are, however, but slightly helpresented: there being only, in the presession of

Copy.

hebruented: there being only, in the possession of the callection, fine medals struck here in honor of hational events, namely "this in honor of Washington (17903/805)" one in honor of Admiral heble (1804) # one in commemoration of the outlet from Lake Erice to the astantic (1826) # one on ascount of the Paylon Existing building (1852). The director of our babinet of medals, therefore, it very anxions

of acquiring american medals and Lam instructed

to evert myself in this matter. I understand that the Philadelphia mint most likely possessed all the coins of such medals, and suppose that the authorization of your department, will at any rate, be wanted for the manufacturing of copies. The fund of the Copenhagen collection of medals being only a small one, copies in brouze and without amp cowers enhancing the cost, would answer to the purpose and be perfectly salisfactors. Hence the regnest I beg leave to make is this, that you will kindly inform me of the proper steps to take in order to acquire for the Danish Lovemment the medals struck by authority of the United States Government and furthermore, that you will grant the permission for the coinage in bronze of co many medals as I would be enabled It order when have learned the number and the prices of the various medals in existence of the kind alluded De remain, dear bro decretary, Very Respectfully your obedient pervant (signed) F. Bille. Danish Minister Resident. Ste'y heasury Descres certain Medals furnished to the Danish Legalin at Works · hopter. Correspondence M.S. Mink.

Branch Mints. Pebruary 1870 FEB 28 1870 RECEIVED

Treasury of the Cluited States. FEB 25 1870 CASH DIVISION, Washington Toty 34 186. Div- Souvaid you this day-fer Relaus Express-Africas Fold and Silver Coines -The pieces of \$250 185. 1 6 " | 6. 173 " 50 £ | 11.50 1263 " 25 £ 65.75, There foreces having been deliv-- que to me as having been fately found on the Sofood of the Medical Stockeeper in this Ty, with a request that the

proper disposition be made of them, I more forward the Came to you, and Lesine that They be Examined to ascertain whother They Contain any gold or silver; that if anything of value is found, The amount thereof be folaced to my Gedit in Sewel Account with the Assistants Treasuren of the United State, at this worthless at Thiladelphia; that the resideres le destroyed, and a Cetticate of such destruction be sent show that I have made the proper disposition of the Son Jartollock Despectfully Sweeter Ud Minh Treased

U.S. Freasurer Washington D.C.

Sendy by Express \$26825 in Spurious Gold and Silve come for Examination and distribution.

am' Fet 26/7" (Dutinger)



Mint of the United States, MELTING & REFINING DEPARTMENT.

Philadelphia, 24 Feb. 1870

Hon. James Pollock Director of the U.S. Mint Dear Sir,

In order to give a full and reliable answer to the questions proposed by the Ireasury Department, relative to the amount of Deposits of gold and Silver at the mint, and to the costs of refining the same, I have entered into a minute investigation of the various items embraced in the questions, and of their quantities and costs.

The deposits of Gold from July 1869 to Jan. 1840, inclusive are presented in Achedule A., which exhibits the deposits of each month from whatever source, From there are deducted the deposits of coin, which were not refined by acid, & those received from the n. y. alsay Office. The gold parted from the Silver deposets of each month, being added to the remainder, the sum represents the total amount of gold refined by

acid in each month. The numbers represent the number of ounces groß, Handard, and, in the sum, also of pure gold.

Schedule B exhibits the Deposits of Silver Bullion in the U. S. Mint, for each month. The 1st line under each month shows the amount deposited for half dollars, and the 2nd line that deposited for Dollars and fine bars. To their sum is added the Silver allowed the Depositor in Gold Deposits, & This sum represents the total amount of Lilver deposited (5th line). The amount received from the N. y. apay Office (line 6th), being deducted from the total, leaves the amount deposited in the Mint. The numbers given represent the groß and standard weights. The total of deposits, both groß and standard, of the apay Office & of the mint, are more briefly collocated in Accedule C. for the 7 months, July 1869 to Jan. 1870, inclusive. Refining gold by Reid, or Parting. The following costs of materials and labor, actually expended in refining gold, are deduced from actual weighings, and from prices

Mint of the United States,

MELTING & REFINING DEPARTMENT.

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prices paid. They are generally given in exceps of the truth, in order that we may be certain that the government shall not lose by an insufficient charge to the Depositor for refining gold. I present them in detail, in order to show the reliability of the conclusion towhich I have

Total cost of Refining Gold from July 1869 to January 1870, inclusive, seven months.

Total amount refined

Standard weight Groß weight Weight of pure Gold

63,104.46 ox. 69,914.35 ox. 56,795.96 ox.

Total of Silver contained and added about 150,000 ox. Std.

materials used, and their cost

16,300 lbs. Parting acid 0112 cts. = \$ 1874.50

120 bushels falt @ 55 cts.

3:500 lbs. Lehigh Kine

2700 " bil of Vetriol

Carried over.

66.00

@ 10 cts 350.00

@ 234 74.25

#2364.75

Brought over

Six tons boal @7.00 #5.00

24 Black lead pots = 1440 × 05 @ 8 ets 115.20

Fluxes

There and drying 84.00

Labor 4 hands for 154 days @3.00 462.00

By comparison of this sum of expenditure for refinin

By comparison of this sum of expenditure for refining with the weights of metal refined, it results that our cost of refining has been for the last seven months at the rate of:

5 cents (exactly 4 tooo cts.) per ounce Standard Gold

42 cents (exactly 4 toos cts) per ounce groß of Gold

The same elements enable to determine approximately

Mu cost of refining silver, since there was refined at

The same time 150,000 ox. of Standard silver, with

a variation of not more than 5 ovo ox., more or lefs,

but probably nearer 155,000 ox. The reason for this

lack of precision is that the exact amount of Silver

in The Gold

Mint of the United States, MELTING & REFINING DEPARTMENT.

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in the Gold deposits was not determined, nor the exact standard of the silver added for refining. Taking 150,000 ox. Stand as the basis, Silver Refining costs

2 cerits (watty 2 1000 cts) pr. ox. standard The rates thus determined are independent of the costs of previously melting, fluxing and assaying deposits, sor which special charges are made.

Refining Silver and Preparing it for Coinage. In the operations of the mint, the demand for Fine Silver bars is amply met. For by reference to Schedule

I it will be observed that the Standard exceeds the Großs weight by some 2,300 or. for the y months, and also 2,800 ox. for the 6 months previously. Jan. to June 1869 inclusive, so that for the whole 13 months, there was a surplus of fine silver, For the y months, July 1869 to Jan. 1870, inclusive, the surplus of fine

silver, resulting from Gold refining, was upwards of 10,000 ounces.

It is true that we were put to some especial expense of refining Silver during the past Dummer, but an inspection of the numbers tabulated at the poot of Ichedule C. will exhibit the reason of this.

In the deposits of Silver received from the n.y. lepay Office for coinage, the deficiency of fine silver required to make up coin, was from January to luguet, 1869, inclusive, 69,378. oz. . By the close of the year, The Office (N.y.) had so far remedied This action, that The amount of deficiency was only over 30,000 ox., thy the close of January, 1870, it was less than 14,000 ox nevertheles. The large deficiency of neary 70,000 ox. obliged us to undertake the special refining of silver, tothe amount of some 30,000 ox. in order to meet the deficiency. The cost of doing this necessarily fell upon the government, because the Depositor had been paid in S.y. without reference to the cost of refining by acid.

There is again another source of unnecessary expense in refining silver, which might and I trust will be obvioued.

Mint of the United States,

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obviated. It arises from the fact that a considerable amount of Silver has been received by us from the N. y. lepay Office, which has proved unfit for coinage, altho sometimes of a high degree of finences, in consequence of the presence of metals te (i.e. sulphuret of autimony). To prepare such for coinage, we have been obliged to refine this by fluxing, at an expense totte government, besides a certain lop of precious metal, because the depositor has been long since paid, othere is no remedy for it. This expenditure should be avoided by making a deposit fit for coinage, so for as to remove sources of brittleness, and charging the depositor with the cost, - or, if the cost of sopreparing the metat can be fairly estimated beforehand, the depositor should be charged for it, and this amount should be evedited to the mint, if such deposit be shipped to the meint for coinage. In this last estimate, some allowance should be made for probable wastage, consequent upon refining metal, unfit for coinage.

I would here append a few remarks on the whole subject of repining, as above presented;

1. The above rate of 5 ets. pr. ox. is in Currency; while we charge 5 ets. in gold, which will pully cover possible wastage in refining gold, and other possible omissions. of items. If we return to a specie basis for circulation, the prices of materials tlabor will be proportionally reduced, so that the above charge of 5 cents, will in all probability be still a full compensation for cost.

2. There is also a fair probability that the above easts of refining will be reduced, by a modification of

the ordinary nitrie process.

3. It has been generally assumed that all other costs of refining are double the cost of mitric acid, whereas the above detailed statement, altho' rather above than below the precise truth, shows that these other costs are not 100 pr. et. more, but not over 68 pr. et. more than the cost of Parting acid Very truly yours

I a Booth

m. AR.

Schedule A Gold Deposits at the U.S. Wint from July 1859 to Jany. 1870 inclusive Gold Deposits. Silver Larted Cross Wight. Stand Wight. Pure Gold Stand Wr. Pure July 1904.13 1713.72 Total Deposits 10.895 91 9.719 27 574 36 574 36 Deduct Deposits of Coin 10.321 55 9.14491 Add Gold parted from Silver 121 91 135 46 Total Gold Parted - July 10.443 46 9.280 37 8.352 33 August. Total Deposits 1299.11 1169.20 11.545 59 10.795 11 Deduct Coin 3.130 96 3.051 88 8.414 63 7.643 23 4467 4963 Add Gold parted from Tilver 6.923 57 8.459 30 7.692 86 Total Gold parted - August-September 1399.04 1259.14 13,472 59 12.866 22 Total Deposits 2.989 88 3.035 45 Deduct Coin " Gold from apay Off. 1.729 32 1.915 00 8.453 39 4.915 77 39 36 43 74 Add Gold from Silver Total Gold Parted September 8. 792 75 7.959 51 7.163 56 October. 1614.84 1453.36 14.732 86 13.867 63 Total Deposits_ 488 52 488 52 Deduct Coin 14.244 34 13.419 11 133 148 Add Gold from Filver Gold Parted October 14.245 67 13.420 59 12.048 53

	November.	Gross M.	ght	Ntand W	ght	Pure Go	ld_	Silver Stand Wt.	Parted
12	Total Deposits			15.138				2224.93	
	Deduct Coin			484	-	1			
	" Gold from apay Office			3.974					
		11.924	36	10.680	46				
	Add Gold from Silver	2	68	2	98				
-	Total Gold parted Novemb?	11.927	03	10.683	44	9.615	10		
ro.	December.								
1	Total Deposits	12.447	01	11.693	39			1216.38	1094.74
1	Deduch Coin			809					
1			1	10.883					
1	1 . 0 . 0			6	1 1				
1	Total Gold Parted December						44		
1	January 1870_								
	~	22,105	12	22.507	06			1540.35	1386.32
1.	Deduct Coin			2417					
-				16.952					
				3.136	17.				
1	Add Gold from Silver	2 3 4 1		40					
1							46		
		1.102	7	0 / 7 /	29	2.859	00		
ng	tol Parted day	60011	35	62 101	16	56 W/02	06		
00	tal Parted for 7 mouths.	9.914	00	00.704	40	011. 793	70		

Average Jineness of the 69.914,35 .812

Schedule A. dest levente of Con

Silver deposits in U.S. Mint

Schedule B. from July 1869 to Feb. 1870

			BAR WALLEST CO. S. C. LANS BY
	Ceross Wight	Stand: Wight.	
	030	030.	
July_	8192.01	8407.16	Deposited for Half Dollars
	45534.05	45154.54	" " " " " " " " " " " " " " " " " " "
0:- 1 1 1	53,726.06	53,561.70	
Silver parted	7713.72	1904:13	
kuno	55.439.78	35.465.83	
N.4. ap.	32067/90	30.541.84	
	23,371.88	24.923.99	
1 -			
August	39.623.85	42.097.63	
	25777115	41.862.68	
Silverparted	85777.45	83960.31	
	86946.65	85.259.42	
ry.ap.	69808.70	66996.52	
	17137.95	18.262.90	
September	73879.73	75305.65	
	6528.5.20	66203.87	
	139164.93	141509.52	
	1259.14	1399.04	
	140424.07	142908.56	
My. ap-	127106.70	128724.80	
	13317.37	14183.76	
6			
October	109615.90	108768.66	
	101081.85	100502.42	
	210697.75	209291.08	
	1453.36	1614.84	
111 21	212151.11	210885.92	
my.af.	156540.70	53965.01	
	55610.41	33963.01	
November.	36973.83	40356.98	
	54217.91	50787.19	
	91191.74	91144.17	
	2002.44	2224.93	7
	93194.18	9336910	
My ab.	170315.30	70406.46	
my.ap.	22878.88	2.2962.64	
December.	47922.05	49530.10	
	68 497.69	70454.42	
	116.419.74	119984.52	
The state of the s	117514.48		
1011 01	117514.48	121200.90	
My. ap	90858.25	92960.65	
	26656.23	2/8'240.25	
-			
January	3850.45	3786.48	
	54020.50	55706.27	The second secon
	57840.95	59492.75	
	57870.95	1540.35	
1.1.1.1	59257.27	61033.10	
My.ap."	39326.00	41309.64	
. /	2/093127	19723.46	
		1/20.40	

Silver Deposits Schedule C

	Said Liquisus							
	N.Y. Assay Off.		U.S. Mir	tint.				
1869	Gross Wight	Stand Wight.	Gross Wight	Stand Wight.				
July.	3 2 067 90	StandWght. 025 dee 3054184	2337188	Stand Wight.				
August.	69808 70	6699652	17.137 95	18262 90				
September	12710670	12872480	1331737	1418376				
October	156540 70	15692091	5561041	5396501				
November.	70315 30	7040646	22878 88	2296264				
December.	90858 25	9296065	2665623	28240 25				
1870								
January	3932600	4130964 587,86082	2093127	1972346				
	58,6,023 55	587,860 82	179.90399	18226201				
1869								
1 1	inib. 116.00%. 65	112.637.20	106,542.04	109.342.16				
	Deposits Received	from N. Y.	assay Office.	in the same of				
	Gross Wight		Excess of Base M.	Fine Silver Reg d				
Sang to aug. incl	217884 25	210175 56	7708.69	69378.21				
Jany to Dec. incl	662 4 05 20	659188 38	3516.82	31651.38				
Jany to Jan in		70049802	1533.18	13798.62				
			Alle Colors and the second second					

J. C. Booth, MAR Reports and gold I Selver refined to June 1 July/69 to 31 st Sain /70. - and q depositors - ocost of the praces. (he reply to Secia heaving of het 3/70)

Rec- 784. 25/70

J. S. MINT United States Assay Office JAN 17 1870 RECEIVED) New York Jaw 15. 1870 Hen James Pollsoll, brecter of the Must. bear sii, Please accept my thouts for your latter sund sudvenes, There must be a letter from the low photos or Secretary on the subject - under the ancentance Auillbe best w postfur further emaderation of the suly of mutie I can Du Hora tulso the Emptroller. Thate completed my agamenation chere taglet bolian for Sty at unatoday The molter thefiner, annual Settement is overy sahspustery. overy Thus yours. A Redindenman

U.S. assay Office New York

Dr HR Sinderman has completeld his examination of affairs at the assa, Office, and will leave for Sitiz



JAN 11 1878 JULIAN GUNGERAN CONTRACTOR OF THE CENTRAL CONTRACTOR OF THE CENTRAL CONTRACTOR OF THE CONT Washington, D. C. Jun 10 11 1870 Son Munes Sollock Direction of the mint Dun him While in the coly I defin ted done douth learthing gold belonging to How I. I. Hope of that the for which I befthe nucht in Philada. It was to be comed who \$20 fold Jucus Him Hope wishes the proceeds don't to him by a dams Efferely. Londone his address as handed me. Regretting that I omitted to call in person for the small-of the deposit Lan your bry truly

Han HD Kelly Washington S.C

Relation to Some South Carolina gold deposited by him

that the gold Receipt should be gan begins we would be per mitted to pay the mining



Saltillo Miss Jany 18th/870 Hon James Pollock Pirictor 21.5. minh Philadelphia Pa just in receipt of your Letter with the ac companying Circular of instructions -& in accordance with its execifications send you per Effices the Bar of Silver befor mentioned. Coin it oplease lend to me its value, as such, after deducting charges to to. Send please C.O.D. Very outpetfully
your obt sot
James 2t. Armstrong
Ext Agt

Sames It Armstrong Saltillo Miss Sends Silver bar for coinage modice ok (no silver in this Ben nothing but Janus Eg Ci, Thing bur june, ever gam is Rec lay 19 Ay 0

Relating to the fiscal year ending Arme 30.1870.

· ·		Rej	rot	Estimate,		Estimales		
	4	m.ll	Dawe.	Sept 27/60		Estimales Jany. 7/70.		
1								
	Dalaries of Officer + Clerks.	25	700	28	000	34	200	
	Lages of Workmen	40	000	40	000	68	000	
	Salaries of Officer + Clerks. Mages of Workmen Incidental & Bon Engine	50	000	100	000	44	00	
		115	700	168	000	140	200	
	Ounerintendent	/1	500	11	200	11	CO 0	
	Ouperintendent, Assayer,		500				500	
	Meller Lefiner,		000				500	
	Deputy Treasures,		000				5004	
	Assistant Assayer,						000	
	Five Clerks	£10	200					
	Six Elerks			12	500			
	Tive Clerks.					13	200	
		25	700	28	000	34	200	
	& authorised Nw. 6.1869. * Includes \$ 1800 for a clerk, where	12	THE	reu	vac	ant		
	and Orceludes \$ 1900 in the case of	a CE	erk	cro	ans	em	Pal)	
	from the Independent Treasury by Sey, of Treas 7., besides & 400	au	thor	5	06	the	,	
-	Sey, of Treast, besides & 400	u	ce	ase	00	Sal	artes	
	(See Estimates Sept. 27,189 for/	20cm	tecu	lans	1			

United States Assay Office JAN 2 1870 S. MINT FEB 2 1870 RECEIVED New York, February 1: 1870. I have nec your letter of 315 ult, and Dend you, in reply thereto, comies of correspondence on file in this Office, with a few explanations. The paper maked A. contains an extract from Mr. Dunnings letter of NOV 1/69 and the acting Oect answer dated AN 15th, in which he requests the Dup! to forward an estimate for 1871 in place of the former one dated Sept 27/69. This duty was postponed by the former Oup? and as a consequence the amended estimates did not go forward until Jan 1.716, 1870, the earliest period, at which I found time to prepare them. Dend you, herewith, a copy of these amended estimates: and as I have explained in the letter embodying them, the reasons for introducing other Dubjects than those referred to, by the Dery in his letter of the 15 Nov., I need not repeat those explana teon in this Communication As Mr. Inox was treve on the 4th, willow, on Official Ensines, I asked him to do me the favor to report to the Jey, that the amended Estimates should be form that week He requested me to send them to the Occy, under cover to him I suppressed

he would see that they went to the proper Conteex would secure for them the earliest consideration, and therefore when I transmitted them on the 7th of Jan T., I acted according to Mr. Mnoc's advice. L'ast friday, at the instance of my fellow officer and the approval of Fredge Folger, I waited upon Mr. Dawer the Chairman of the House Contee on appropriation, and pointed out the error in the report of his Committee. (De informed me that his Come had not received) my Estimates and Ead been obliged to do without them: and advised me to have then sent to Mr. Morrile, Eh: of the Tenate Com, in appro. The same day, I had only Deen my Estimates the days porevious: of course the House Comtee should not be blamed for acting without any reference to what they had not before them, and the Dery of the hearing did not have them in * his properior until after the bom tee made their report. The paper marked B, exhibits the estimates as reported by the House Com, those forwarded by the late Jupat and those prepared & forwarded by me. It also shows two the different aggregate, for Oalarie, and made up

in accordance with the estimates. You inquire what effect will the adoption of Mr. Dawes bill have upon the operations and the efficiency of the assay Office? It is evident from a glance at the items in his report as compared with those in our ostimates, that we world be left without the means of paying our look men, and injustice would be done to the Officer + blecht. We has allowed \$ 6000 more for Inc. Exps than I ask; and ony estimates are \$ 21.800 less in the aggregate than are the estimates of Sept 169, notwithstanding 1000vision is made for the morease in salaries which has been recommended to the Occietary for his approval, in order to procure the requisite Cegis lution. I shall be happy to furnish whatever other information you may desire in answer to your letter, if the points are not fully Covered. Very respectfully Your Obe Dorot Esw. Vr. Odelman, " I consider all the trouble, caused us, has arisen from this fact. Dry tad-interior

n.y. Assay office (G. W. Edelman) Explanating of the annal Este. · mades for 1871. J.S. MINT FEB 2 1870 RECEIVED! J.S. MINT JAN 2 1870 RECEIVED!

- blopy - United States Assay Office New York Sanuary 1/2 1840 Sir: In reply to your letter of the 15 m for / by to the Tale On perintendent, "requesting from to furnish an estimate for the year ending June 30, 1871, in place of that proviously Sent, increasing the amount for mayer of mothemen, and dienasing proportionally the appropriation of Incidental a Contingent Expenses, I have the hour to submit the following Statement. At the time the estimates our transmitted to the Director of the Mint for his approval, the Calculations were bused upon the then existing State of Chings. According to these estimates, the amount-This Office was, for Salaries of Officers oblishes \$28,000.

for Mages of Workmen 40,000.

for Sue o bont. Exp. & Repairs 100,000. Ootab \$ 168,000. Since firmishing these estimates, events

have transpired, in connection with this Office, which make it necessary to remodel them. On the 6th An. Past the Salary of the Deputy Treasurer our micreased \$1,500. On the 16 to of the same month applecalin was made through the dreasurer of the Office, Judge Volger, for an increase of the Salaries of the Heigh black, the Ac. constant, the Vaying Teller & the Bar Check, amounting in all to 2,500. On the 28th December Part, the Asst. Assayer's bond was transmilled to the department, with the request on his behalf for an increase of balany of 1,000. Besides the foregoing ilens, the Assayer of the Meller of Refiner have just claims for an increase of their dalaries, which I have underslood, have been so regarded by the department: In my opinion, this morace Thould be at least \$1,500 each, making together the Rum of Total mirrase granted vasked for \$ 8,000. On the former estimate, the amount asked

Extract from a letter of Mr. Dunning late Superintendent of the Assay Office, New York, to the Secretary of the Treasury, dated Nov. 1st 1869, in regard to the practise of changing a forting of the expenses for personal Service at this Office to the Up. of Incidental & bontingent Expenses. " A doubt having been uppressed by our Deputy Oreasurer, Mr. Edelman, as to the propriety of Charging to the account of Incidental oboutingent Expenses any portion of our expenses for personal Service, I have decided to refer the matter for the decision of the department."

In reply, the following letter was received:

Orasung Department.
Olov. 15th, 1869.

I have received your letter of the 4th (set) instant relative to the appropriations of the estimates for the assay Office.

In reply it is recommended that the change proposed by Mr. Edelman he adopted immediately after the close of the fiscal year for which appropriations are already made, and you are requested to formand an estimate for the year ending June 30th, 1871, in place of that already received, moreusing the amount for mages of morkmen, of diereasing proportionally the appropriation of Incidental of Contingent Expenses". Very Respectfully, Mm A. Richardson, acting Secretary of the Trasing. Supt. U.S. Assay Office, 3 Plew book.

for Salaries of Officers , Clarks mas \$28,000. this mas \$1,800 in upeers of the amount agained 1.800. To this must be added the foregoing increase of 8,000. Showing the amount required for Salaries \$ 34,200. I trust that the Hon. Secretary will respond favorably to the mikes of the above named Officers + blinks for an increase of their dalaries by securing the necessamy legislation, as it is of the utmost importance to relaw the services of skilled, upperenced, a faithful Servants of the overment. I would most respectfully recommend that the law, authorizing the new Salaries, provide for their taking effect on the 1et January, 1870, as there is a sufficient surplus in the Salary fund of the fiscal year ending June 30, 1870, to meet the inenace proposed, a therefore no additional appropriation will be regained for this purpose. in the former estimate, the ant. asked for Mages of Workmen mes \$40,000. Under the anangement for charging vills for foromal Services to this ale uistead of the ap. of Suc. olont. Espi as direclick in your letter of the 15 me tov. /69, it will regrive an additional simil of 28,000. Total ant required for Mages. 68,000.

In the former estimate, the amount asked for Sucidental o Contingent Expenses mas From this deduct the own added to the Upe of Mages of Workmen as above \$28,000. o for an overestimate of the amount regrind to pay the cummh expenditures of the fiscal year ending June 30,1871 28,000. 56,000. Total amt rignind for live o Cont. Exp. \$44,000. Recapilibation: The amount required to be appropriated, therefore, for the support of the Office, will be I. O'er dalaries of Officers or Cliste \$34,200. II. For Hages of Horkmen 68,000. III. For Incidental o Contingent Expens Alepains 44,000. Oolab. \$146,200. I have the honor to be Very Respectfully, Your Off Servant. Geo. M. Edelman, Hon. Seo. S. Boulwell, Suph. Secretary of the Orasung, Hashington. Supt. ad interim.

R. B. ALLEN. U.S. MINT

ALLEN & CLIFFORD,

Importers, Dealers and Commission Merchants,

P. O. BOX, 2104. NO. 41 NORTH FRONT STREET.

Drugs, Chemicals, Dye Stuffs.

Philadelphia, January, 5th 1870

How: Jak Tollock Director of the United States Meint at Philadel

Your valued favor of the 18th Decr has lain over on account of the desire of the wreter to see you personally, but has not as yet had the apportunity. We are the direct agents of the manufacturer of the acids offered the ellint, and the writers long experience in that busines enables us Know exactly the grade of acid required, and we would guarantee all send to the client to be of the purest Kind and up to fuce strength. Under the cercumstances we would ask a fair competition, and a trial to assure you that the goods are as represented & should feel obliged to you for any consideration you may think our application worth We garde Nitrid Acid 40° 11/2 cts Aqua Fortis Ho 10 " Oil Vitriol 66° 2 3/4 cts.

Very Reefly Tours.

Allen & Clifferd

41 htt Front st

Philadelphia

Relation to "acids" for the

Uint



E.S. Renwick New york

Enquires about his
letter of Fet, 2/70 in
reference to ellithis
patient for refriends
from by theories gas.



MAR I 187034 Beach & New York

RECEIVED FIRST 28th 7870

Hou Jas. Dollock Derector U. S. Phinit . Phila. Dear Fir on the Quist, I addreped to you a letter respecting hillers process of refining Gold by means of Chlorine las. as us reply has been received, I write to ask whether the letter was Elecived, and if so that you will be pleased to inform me what if any action has been had in the matter. Jours respectfully O. L. Kanwick

Record . 26/11 Uraning Department Courant Constabing Hinting 25th February 18.70. James Pollock Egine Director M. S. Minh Philadelphia, Ad Demelin I would be very much obliged to you if you will send me In (S) family of Sine Derpelilner for the use afthis durenny Very Respectfully Sev. N.M. Onites. Thiefof Ameun Gir B. Melenter

Mint of the United States,

MELTING & REFINING DEPARTMENT.

Philadelphia, 1. March. 1890

m- Jeo. B. Me Carter Chief of Bureau of Engraving & Printing Treasury Dept, Washington D.C.

Dr.

To Twenty four ownces of fine Lilver? of 9992 fine. A1.39 in fractional \ Silver Coin per oz. Pure Silver \ \$33.35

Grand Brinding.

Orders 2th fine

24 021 sent 4 Exhap Mark 1/70.

Res Feb 26/70

M. J.S. MINT FEB 25 1870 Treasury Department,

Tehnany 24', 1870. RECEIVED! Sir/: You will please furnish the Department, at your earliest convenience, with a statement showing the names, designation, compensation, date of appointment and Act under which Traid of all the employees of the Mint, including Morkmen, Adjusters and Laborers !! January respectfully Jon S. Winthe otto James Pollock Esq. Tuesdany Director W.S.Mint Miladelphia Penna.

Stoy headury

Mants Statement of marnes, designa time, compensation of all Employers air the Mint, including morkinen, adjusters and laborers, and the act authorizing their ap-

-

am Mch 7/70



United States Assay Office

MECEINED:

Men York, Samuary 17'1870.

Siv:

Send enclosed my
requisition, upon the Secretary of the
Treasury, for Twenty thousand dollars,

viz:

For Palaries of Officers + Clerks \$ 5000.

Mages of Workmen 5000.

The Con, Escresses 10000.

I would respectfully request that it-

Very respectfully, Your obt. Sent Eseo. Mr. Edelman Oup to ad-interior.

Hon James Tollock () Director of the U.S. Mine) U.S. Assay Office New York

Requisition fr



JAN 19 1870

RECEIVED:

United States Assay Office New York, Jan 4. 18 12/1870.

On what terms and in what manned,
your Treasurer disposes of the Mint
Sweeps.
We have 60 bbls for Dale
and desire to Know the names of
the Ometters, who are in the habit

Your oft Server Eses. W. Odelman, Supt ad interin

Hon James Tollock, ()
Director of the U.S. Mint)

of buying them.

U S. Assay Office New York

Has 60 Bbls Sweeps, and would like to dispose of them



Rec Jan 20/14 Trensury Department. January 18th 1840. the laws relative to the mints, assay Offices, and Comage of the United States" which has been prepared under the Supervision of Mistries of this Department. You are requested to examine this bill Carefully, in Company with the other officers of the Ment, and return at to this Department during the prosent week, making Such Suggestions, and noting when it in writing, such amendments, as you may their desirable. Very Respectfully

Secretary of the Dreasery Hon James Pollock 3 Director of the muit 3

JAN 19 1870 Assay Office of the United States.

Treasurer's Departments.

New York, Jan 18 18/10 Many James Pollock
Director of the U.S. Mint
Sir I would respectfully request your allention to the following extracts from the law, in relative to The last en incomes, as applied to persons in The surice of The M.S. Government. M.S. Statules, Vol. 13. page 478. act of Minch 22 1864. That There shall be levied, Collected, and paid annually, upon The guins, profets and income of "every presson residing in The M.S. xx+x " a lay of 5 % on The amount so derived

2.

" over One Thousand dollars, *** And

" The tay herein provided for shall be

" assessed, collected, and paid upon the

" gains, profits and income for the year

" ending the 31th day of December mest fire
" coding the Time for lovging, collecting,

" and paying said tax".

W. S. Statutes, Vol. 13. Juage 480. act of March 2. 1864. That The Taxes in incomes himin "imposed, shall be levied in the 1th day of " Much, and be dow and prayable in or "before the 30th day of april, in each your, " until and including the year eighten " hundred and swenty, and no longer: In The Gumer enachment of Murch 1867, The amount exempt from luxution ious inevened from \$600. to \$ 1000. Talling

effect from January 1. 1866; but The Lax upon Sularies to fraid to Government employes, having ben deducted & withhold, on the minthly pay rolls, The amount of \$. 1,000. exempt, could not be made available, Till The 1t of March 186%: Thus for a period of fourteen months The last of 5 % on \$ 400, amounting to \$ 23.33 was collected from those in The Surice, not authorised by law, and not assessed infrom the incomes of Those not in The service of the Government. A similar error, in The present instance could be avoided, by asculaining The con-Struction of The law, as stated in The 20 extract, as to The application

of The words, "until and including

The year 1840, and no longer; If they apply to the luying of collecting the but for the year inding 31 December must preceding the line for luying, collecting to it is evident the but expires by limitation in 31 " December 1869. If in the centrary of ivas the spirit of the law, that the your 18/11, should contribute its bank, would it not imply the necessity of luying I collecting That lat, en er before The 30th april 1871! In The went of a modification of the tax, during The present susino, it would evale imbarrassment in The adjustment of our weevents if any unautherised tax should

be deducted and withheld, from The present line, until The passage of such act. If you concer with me in These views, I will Thank you to invite the allention of The Dientury of The Treasury To The Dubject, for The purpose of obtaining his decision in regard to it, as early as priacticable, so That I may average for the prayments of The present month in accordance Therewith. Very Verpuetfully Your Ott Swant. 1 Esa. VI. Edelman, Sup ad-interim.

U.S. assey Office New York

In relation to the U.S. "Income Sax" on Wages & Salaries - for 1870



RECHIVED JAN 21 1870 Treasurers Offic Cohnestown Jan 90 Mr Boutwell: Hease inform me if in 1806, any mickle cente, evere coined, or issued.

and oblige Lal Clino.
Cohnstown,
Fam Co. Da.
Washington.
A. C.,

et. 38%. Johnston Pa. Desiretoknowif aug nickel Centione loined orifued ins 1856, S. MINT JAN 22 1870 MEGENED! Greasury of the A. §. January 21, 1870 Respectfully referred to the Hon. the Director of the U. A Mint Thiladelphia, Ja, for welly 2 Schown

JAN 22 1870 Tremsnow Popuritment. PECENED: January 21 4/840

Dis:

There received a letter from Glorge A. Christian Presh
of a Dilver mining Corpany in Philadelphia, who says he has been a large depositor of Silver bullion in the Mick, and that recently he has been informed by the person in charge of the deposit room, that silver would not hereafter be received unless it was first out up in proces to such the melting pots of the Minh - He states that the Mint has every Convenience for Cutting up this selver without waste - that it is a great inconvencenee for him to do it, and that he is willing to pay for lytro work of this Kind, if required.

I call your attention to his Statement with the request that if the Minh has a sufficient number of Clearer and laborers to perform this work hereafter, wethout any very great inconvenience, that it may be performed, unless there is

Some Particular objection to it. Very Respectfully Glod M. Somoth, Becretary of the Sourcey Hon James Sollock & Director of the Merit & Mandelphea Pa. W

Stery of Reasury Upm Conflaint of Mrs. St. Phristian desires that large Silver buttons may he cut up in the Mit - for comage of there be no in · Superable objection. (am fan 24/70.)



New-York, Jany 24 1870. Manny received an enquiry from one of our Pasis pricios, eve intrade upon your Kindoup requesting you to dead es the last report of the M. S. Mind. Our pieur would also the to know whether are estimate has been made of the amount of dilver coin in circulation in the Priches States - his its weight such hem reduced in 1953.2 Olesse muse the boutle we zine you, and accept our thanks for Jours Pollock Esty

Amietor M.S. Mins, Philadelphia Jaguing E, the vilve comage in · Culetino - + in weight in 1863. 1870 G.S. MINT JAN 95 1870 SOENED!

Invoice No. 4.

Statement of Sold Bullion transmitted to the UNITED STATES MINT, for Cointige, pursuant to Act of March, 1855, by Charles Jolges.

Treasures of the UNITED STATES ASSAY OFFICE.

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Jan. 20 H 1870 Invier X H 1870 United States a.O. My.

JAN 26 1870 New York Tany 25 1870.

RECEIVED: MEDICE TOWN 25 1870. Dear Oir: I will be much obliged to you, if you will transmit to me a few copies of your last annual Report to the Genetary of the hearing. Very respectfully Huly Yours Dup grad wit. Hon James Tollock, Director U.S. Mint?

US Assay Office New York

Hants a few Copies al Directors last annual Repat



JAN 26 1870

RECEIVED:

Theasury Depantment,

January 25, 1870.

Ser:

By virtue of the cuthority contained in the 12th Section of the act of aug. 6. 1846, entitled "an act to provide for the better organization of the Treasury and for the collection, safe keeping, transfer and disbursement of the public moneys" you are hereby, directed from time to time at least once in each month to make in connection with the Maral officer of the port of Philadelphia and the Director of the U.S. Mint of that city, a careful examination of the books accounts and moneys on hand in the office of the U. S. afaistant Treasurer at Philadelphia with a view to ascertain and and report the Exact condition of said office.

This Examination should be made on such day or days as the Committee may select and should be conducted in the following manner:

Upon presenting yourselves at the office

of the apt. Treasurer at the beginning of business on any given day you will ask him to deliver to you the keys of the vaults; you will then count the money in possession of the Cashier or Paying Veller for current business purposes, keeping a carefully prepared memorandum of the same. Having ascertained the Efact amount in his possession you will direct him to Reep a similar memorandum and to add the receipts for that day and so from day to day should the examination occupy a longer time. The nextstep will be to make an Exact count of all the Currency and com in the Vaults, the latter by weight. Having ascertained the total amount of funds in the vaults you will ask the Cashier or Teller to furnish you the amount received since the commencement of the Examination which you will add to the amount in his hands at that time as fur the memorandum above referred to and the total cash in his hands should equal the amount of such memorandum. The

aggregate amount of all the cash having been ascertained an examination of the different accounts kept in the office should show its liabilities to agree with its afects.

as soon as the money in the vaulto shall have been counted you will please tie it up in packages or bags and place your seal upon them. These packages or bags are not to be opened unless absolutely necessary. When therefore you make your next mouthly Examination its will be necessary only to count such portions of the funds as do not bear your seal. Should you in making these Examinations need any apistants you are hereby authorized to procure them from the Custom House Employees by request whom the Collector, taking particular care that they are good and reliable men adapted to this kind of business.

These suggestions are not intended to freehode the adoption of other additional ones which may occur to you.

Very respectfully.

Secretary.

E. O'Meara Goodnich. Esq.

Surveyor Customs

Philadelphia

Pa.

H heye

Theasury Department,

January 25 \$ 1870.

Nin in

I have this day directed the Annoyor and Havel officer of the Port of Philadelphia to unite with your hereafter in Conducting The examinations of the books, accounts and moneys in the office of the U.S. afat. I nearner of your City. It may be well for me to add that this has been deemed advisable became of the negnirements of the 12 the Dection of the act of august 6th 1846.

I have embodied in the letters to the Gentlemen above refund to certain Auggestions ly which the Committee is to be guided in addition to Twose which may occur to it and

enclose a Copy for your information Very Respectfully Very Respectfully Viriator U. S. Whit Good Secretary

Boutwell! mutuclion for mothly count of Tyanin atime of fruits of Ufit Treas. U.S.; in Conjunction noth the · Varal Officer and surveyor of the Port. Musles Rut of Regent 6 1846 Deelle 1/2 J.S. MINT JAN 26 1870 PECEIVED!

JAN 28 1870

Copy

I have the honor to return herewith the papers referred to me on the 16 " instant, for my opinion as to the respective powers of the Slirector and Treasurer of the Mint at Philadelphia, to appoint certain employees in that office. The Treasurer complains that the Slivector has appointed two persons in the Cashier's office and four persons in the office of weighing clerk, (the cashier and weigher being clerks appointed by him) and holds that being clerks and performing the duties of clerks, they should be appointed by him if by any one; while on the contrary the Slirector claims that they are not clerks and do not perform clerical duty, but render assistance simply as workner and servants and so to be employed by him. Duppere the persons in question

are to be considered clerks, then the Director cannot ap point them, but the position taken by the Greasurer is not helped. By section 3, of the Oct of January 10, 1837, the Slirector was empowered to appoint certain assistants therein named, and clerks for himself and the Greasure Whenever on representation made by him to the Presi dent the latter shall be of the opinion that such assistants or clerks are necessary. The act of march 3, 1837 however, repealed so much of the second section of the act of march 3, 1835, establishing Branch Mints, as vested the appointment of clerks of the Treasurer in the Super. intendent thereof, and authorized the several Treasurers of the United States Mint, to appoint their own clerks, subject to the approval of the Decretary of the Treasury. It is True that the act of 1831, repeals only the act of 1835, and not Section 3, of the act of 1837, under which the Llirector of the mint at Philadelphia appointed Clerks for the Treasurer, and it might well be held that the Treasurers mentioned in the second clause of the former

actapplied only to Treasurers of the Branch Mints, but the reason for the change given in the preamble of the act of 1851 applies equally to the parent Mint at Philadelphia, and should therefore be construed to apply to it. If then under such a construction the Treasurer of the mint at Philadelphia can appoint his own clerks, he can only appoint such clerks as under the act of 1837, the President shall deem necessary on the representation of the Slirector, or, in other words, he can do under the act of 1837, only what the Elirector could do under the act of 1837, that is fell up offices deemed necessary to be created by the President. This conclusion is irresistible because section 3, of the act of 1837, is only so far repealed, if at all, as relates to the mere appointment to offices already created. The number of clerkships now established at Philadelphia under, and in compliance with the provi sions of the act of 1837 is six, as alleged by the Elirector, and this number is all that is provided for in the act of 1866 establishing the compensation of clerks in the Mint at Philadelphia. The Treasurer cannot therefore appoint more than this number, until on the representation of the Sliveetor the President shall create the office.

But I think, as a matter of fact, the persons in question cannot be considered clerks, but worknew. The Elirector

alleges that they are employed by him as workmen and are so paid. This it peems to me is the criterion by which their status is to be determined. The duties which they perform, do not make them sitten workmen or clerks, a workman may be detailed to perform cleri—cal duty, or vice versa, without changing his official designation and character.

I am therefore of opinion that the persons are rightly employed by the Slivector as worknew under the 4th Section of the act of 1837, which gives to him the power to employ such worknew and servants in the Mint, as he shall from time to time find necessary.

Jam, Very Respectfully,

E. C. Banfield,

Solicitor of the Greasury.

Hon Seo. S. Boutwell, Secretary of the Greasury. E. C. Banfield Solicitor of the Greasury January 26,1870.

Opinion relative to the respective powers of the Lirector and Treasurer of the Mint at Philadelphia to appoint certain employ-us in that office.



JAN 28 1870

RECEIVED Trensnop Department.

January 24 1840. I transmit herewish a copy of the opinion of the Solicitor under date of the 25 - instant relative to the right of affoirtment of Clerks and Employee's in the office of the Ireasurer of the mint. Very Respectfully

Seevebury of the Snasury Hond corge Eyster & Dreasurer of the mind & Philadelphia Pa &

Hey Reading Enclosing opining the Solicitor of the heading Sing tanning the Eight of the Director of the ellint to appoint Calain Employer an the Depart Romant heasurer office. J. S. MINT JAN 28 1870 RECEIVED.

THE WESTERN UNION TELEGRAPH COMPANY.

The rules of this Company require that all messages received for transmission, shall be written on the message blanks of the Company, under and subject to the conditions printed thereon, which conditions have been agreed to by the sender of the following-message.

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WHERE ANY REPLY SHOULD BE SENT.

Jno. Jayskaot Jan 29/70 H Hants copy of letter for-Edelman & Mason -

GAZETTE AND CHRONICLE OFFICE. Gazette Established 1850. Chronicle " 1855. Consolidated in - - 1865. W. J. USREY, OLDEST PAPER BOOK AND JOB PRINTER, In the County, -AND HAVING THE-Largest Circulation. No. 14 East Main Street. SUBSCRIPTION, \$2 A YEAR, IN ADVANCE. Decatur, III., Jany 28 1870 Terms of Advertising reasonable. To the Director of U. S. minh Phila Pa JAN 31 1870
RECEIVED At 120 mas sent you and gour Reefst Record for the same Please with me what is the matter Juns Auch A. M. Allison for Mr. Pope alley In 4/20 Rent fallows Ex. les to your ands The and of of bule or west placed by the rules of the month in the hand of the agent of assure Et les whose your is in the lenney of the proceeds in good comp 26 of part fother by les to from anys. on the 4: of Ing 1870. The agent here were in quai into the mother, It is, King fem to you,

A.M. Allian pu M. Pope, atty Decatur, Ile Le quies about registered Letter (noto buttine) of Me 24/69-(and lang 31/76 that proceeds + 26 66 how Sent of Extents 4 James () JAN 31 1870 RECEIVED.

Office of Sugh- at-arms.
Hof Representations, Marlington, D.C.
Saban Hearth Eig.
My dear Sir;
B Enclose herewith a letter from the Secretary of the Treasury to Hon James Pullock.

Director of the mint at Philadelphia, authorizing the use of coines for your work. Palso Enclose my Draft for two Thousand (\$2000) Dollars which you can deposit at the mint for security for their return, You had britter take out a sufficient number of coin for one third of the first plate, and let In. Hachlen ascertain what he can do and submit to me in writing what he will furnish Them by the thousand sets for, and also get the terms of the gentleman who printed the plater for

Rec. Jan 22/70 Trensmy Department. of from Snowden, certain electrotype plates used by him some years since for the purpose of illustrating a book upon Coinage. He now wishes to obtain of the Mink for temporary we in touching up these plates, the coins formerly wed by more nowder, and proposes to deposit such an amount of coin or securities with the much, for their safe return, as you may require. You are authorized to place these coins temporarily in the Custody of M. Ordray for this purpose, when the terms proposed by here, miles you see some objection to so doing. Very Restectfully

Secretary of the Dreasury Hon James Sollock 3 Director of the muit 3 Philadelphia &

Secy heading Regun this permossion for Am. M. G. ordrowy to take coins in the Cabinett for publication . filed howarth } Correspondence M. S. Much also, of Branch Muts January 1870, Rue Jany 22/70 12 Jay 22/70

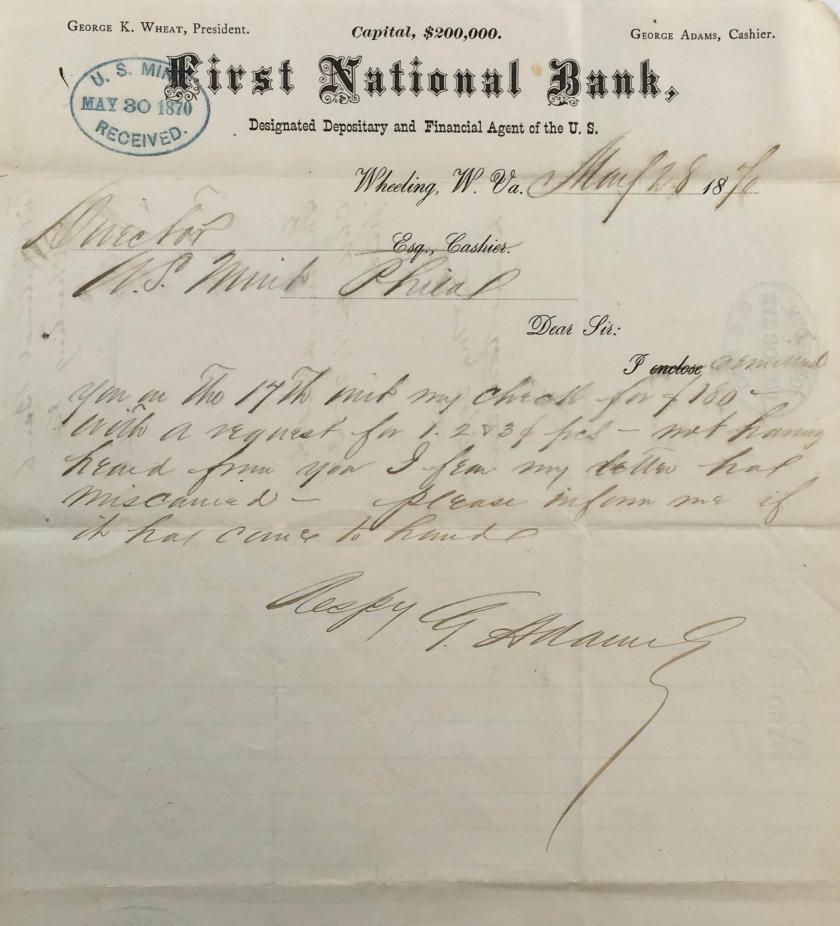
Mr Drowden work, - As soon as ar the pueties are ready to Contract, I will come on and close the matter, We must have the bast impressions that can be made, as mr. John J. Knop says he has seen an English Edition which was vry fine, -Downt the work creditable to the Jovannent as well axomselver. Very Tuly yours. My Orling of. You can show this letter to Afor, Pollock when you pasent the Secretarize letter, A. S. O.

U.S. MINT GENERAL CORRESPONDENCE 1870/JANUARY-FEBRUARY



US. MINT GENERAL CORRESPONDENCE 1870/MAY-JUNE





Fint National Bank Wheeling 12.

George Adams. Paline.

Engine, about \$180. Cho for 1,2 ×3 f

he sent tommor.



United States Treasury.

Boston Illay 24 4876. James Pollock Eg Director of the Ellint I have the honor to enclose herewith a quarter eagle bearing date 1860. Please return it with your opinion reshecting its genuineness and the materials that compose it. It seems to be of 2 grs light meight Is it not similar to the counterfeit half eagle which you kindly famined a ferr days ago? Very cespy Your Obt Servet T. Haven for Olses Treas el.

Assistant Treasurer, A. S.

Boston,.....186

No. of Papers,

subject, Enclose, Spurious

gnatu Engle fa

Examination

Rec May 28.

MAY 28 1870 PECEIVED!

Earton, Pa. May 27, 1870.

Hon. James Pollock

Sir: - Director of Mint W.S.

Herwith you have Frank's Bond for your approval, to be forwarded to the Frearmy

Department.

Frank in his letter to me, enclosing the Bond, says that Juage Hillyer was absent, and he was obliged to wait several months before he could see him at Carron lity, to get his sig-

Frank says they are Keft busy at the Carnen

mint, and an getting along quite well.

With thanks for you Kindness to Frank

udfare in every sense, I assure you that

dam

Four's to to Foriale P. Hetrick

Josiah P. Hetrick Easter Pa

Encloses official
Budg Frank Di Stank, assays Canon B. Mint,

MAY 28 1870

RECEIVED:

Mint of the United States, MELTING & REFINING DEPARTMENT.

Philadelphia, 21 et may. 1870

Hon James Pollock Director of the U.S. Mint Dear Dir,

In reply to the letters of the Splatt. of The n.y. apay Office tof Mr mason, M &R., I would

1. That Mr mason has misunderstood the term "base as used in my letter, but by reference to the published Instructions relative to Transaction of Business. de. it will be found that the term base refers to any other metals, but gold and silver, and that where bebrittling metals are present, the term "not ductile" is used additionally; that an alloy of copper in excess, is a base metal, but not bouttle, and that heavier charges are made for refining, where lead, trin, to are present, their where copper alone is present. as I did not use the term not ductile but simply base, I therefore referred only to copper. During the past year, I have more Than once called

attention Tottu presence of lead, tin, te. as constituting a different alloy from one containing only copper as the debasing metal.

2. To remarks by the Suptett. I'M mason "that more than enough silver has been sent in the course of this year. reply, - That if today some 20,000 ox. of silver were deposited, the standard of which would be 17,000 ox., it would require 27,000 ax. of pure silver to bring the whole to standard. If then this amount were required forthwith in coin, we must always have that amount of coin, or of fine silver to make the coin, on hand and in our vaults. and since, when coin is made, only one half of any lot of silver is made into coin, at once, - one half the balance soon after, and & of that again still later; - then it is manipest that we ought to have a very large bullion fund to meet such business, say, three times the value of such a deposit, or some \$50,000 = in addition towhat we have. Hence, the amount of fine silver, required to bring up base silver to standard, should be forwarded at the same time or nearly at the same time, with The baser metal.

Mint of the United States, MELTING & REFINING DEPARTMENT.

Philadelphia, 186

I drew attention to the past that up to last fall, the lipsay Office had supplied us with somuch base silver, during the year, as to require 50,000 or. fine silver, more than had been forwarded to us, so that we were obliged to refine a lot of some 30,000 ox. by acid, to supply the deficiency. and altho' this deficiency was nearly made up subsequently yet it was then too late, and the active demand for coin required us to melt up this fine silver with copper instead of with base silver, so that we lost the benefit of the fine silver.

3. Mr mason's remarks on the preponderance of Silver over gold deposits at the lefsay Office, confirms the opinions of mel, Eckfeldt, Dubois & myself, in our conference with mr mason last Winter, on the subject of Refining Charges, especially for Lilver, when we took the ground of making charges equal tottu actual cost of doing the same, independeut of the amount of fine silver accorning from gold: parting, because we could not depend upon the ausount of gold tobe refined. The result, cited by Mr- Mason, proves the soundness of our opinion.

There is however another view, based on the charge for refining silver by acid, which ought to be done when be brittling metals are present, in order to coinable metal, - vix. that when such charge is made, the silver ought to be refined expressly in that way + for that pupose, and not wait until so much gold has been refined, as would return somuch fine silver.

I trust that the detailed exposition of the facts of the question will be satisficatory to the Suptot Me lecton and to the M PR. M- mason.

Respectfully yours Late Booth MYR Pag. Booth U+R

Controverts the protest of N. y. assay office against for withing 25,000 03 fine selver.

Rec May 21/70

OF THE UNITED STATES, MELTING & REFINING DEPARTMENT, Philadelphia, 21 th May 1870 Hon James Tollock Director of the U.S. Mint Dear Sir In reply to the letter of the Supt of the S. G. assay office, + of Mr Mason, M+R., I would 1: That Un Mason has misunderstood the term "base" as used in my letter, but by reference to the published "Instructions relative to Transaction of Business. 4: it will be found that the term base" refers to any other metats, but gold and silver, and that where bebrittling metats are present, the term "not ductile" is used additionally; that an alloy of copper in excess, is a base metal, but not brittle, and that heavier charges are made for refining, where lead, tin, += are present, than where copper alone is present. As I did not use the term "not ductile" but Simply "base", I therefore referred only to copper. During the past year, I have more than once called attention to the

presence of lead, tin, += as constituting a different alloy from one containing only copper as the debasing metal. 2. Fo remarks by the Supt. I M Mason that more than enough silver has been sent in the course of this year", I reply, - that if to day Some 20.000 oz-of Silver were deposited, the standard of which would be 14,000 oz., it would require 27.000 & of pure silver to bring the whole to Standard. If then this amount were required forthwith in coin, we must always have that amount of coin, or of fine Silver to make the coin, on hand and in our baults, and Since, when eoin is made, only one half of any lot of Silver is made into coin at once, - one half the balance soon after, - and 2 of that again still later; - Then it is manifest that we ought to have a very large "bullion fund" to meet such business, say, three times the value of such a deposit, or Some \$50,000 = in addition to what we have. Hence, the amount of fine Silver, required to bring up base silver to Standard, Should be forwarded at the same time or nearly at the same time, with the baser metal. I drew

MINT OF THE UNITED STATES, MELTING & REFINING DEPARTMENT,

Philadelphia, ______187 attention to the fact that up to last fall, the assay Office had supplied us with so much base silver, during the year, as to require 50.000 02. fine selver, more than had been forwarded to us, so that ever were obliged to refine a lot of Some 30.000 oz by acid, to Supply the deficiency and altho' this deficiency was nearly made up subsequently get it was then too late, and the active demand for coin required us to melt up this fine Silver evith copper instead of with base silver, so that we lost the benefit of the fine silver. 3. Mr Mason's remarks on the preponderance of Silver our gold deposits at the assay Office, confirms the opinions of Mesen Eckfeldt, Dubois & Myself, in our conference with Mr Mason last Winter, on the Subject of Refining Charges, especially for Silver, when we took the ground of making charges equal to the actual cost of doing the same, independent of the amount of fine silver accruing from gold parting, because we could not depend upon the amount of gold to

be refined. The result, cited by Mr Mason, proves the Soundness of our opinion.

There is however another view, based on the charge for refining silver by acid, which ought to be done when bebuiltling metals are present, in order to coinable metal; viz. - that when such charge is made, the silver ought to be refined expressly in that evay of for that purpose, and not to wait until so much gold has been refined, as would return so much fine silver.

I trust the detailed exposition of the facts of the question will be satisfactor, to the Suft Un acton

and to the Ux R- Un Mason

Respectfully Town
(Signed) Jas 6 Booth

M & R

Prof I. C. Booth US Mins

Relation to Mr mason's understanding of the term base as used in Thof Booth's letter = alev in relation to the quality of Silver sent from the Sv. y array Office, and the quantity of fine lilve required to refine it

Ree = May 21/70

MAY 21 1870 RECEIVED United States Assay Office New York May 201870. On referring your letter of the 18th mist, containing a communication from Trofessor Booth in relation to the last invoice of Silver bullion sent from this Office to the Mint for comage, to the meller & Refiner, Mr. Mason, I received from him the enclosed letter, which I forward for your consideration. I am smable to find, in the correspondence which has taken place heretofore in regard to this matter, any positive instructions as to the duty of the Meller o Refiner to send only Standard or fine silver to the mint for comage, or to retain Silver below clandard mutel enough fine Silver is obtained to make good the deficiency. In the absince of euch instructions, the law relating to the transfer of bullion to the mint for comage mould been to require ito transmission "as oven as assayed." On examination, I find, however, that during the current fiscal year the amount this transferred actually exceeded Mondard

by nearly 5000 onnes. Trofessor Booth observes, at the end of his letter, that mules the amount of fine bilour regained to bring up the last invoice to standard be sent on at once, "The silver may have to wait for meks without comage." No me are in no immediate med of silver com, the apprehended delay will cause no incommence to this Office. Very Respectfully, Som Oft Servant, How. Clames Gollock, Desperintendent.
Director of the Mint.
Shiladelphia.



MAY 21 1870

RECEIVED: United States Assay Office New York May 19 1870. This b. Action Eng.

Dear Fri
The letter of the Director of the Mint of 18th inst. (enclosing a copy of one from the Millie Refiner to him of Raine date aubmilled by you for my consideration, states that "the last inview of Rilver from the Med took arany Office is no base that it will require nearly 25 000 ources of fine selves to tring it up to standard, + asks that "you will annediality formish the regioned amount "It is also eaid, that our altention has been repeatedly called to the "grevance complained of!" Touchy, some pealures of the case have been much to his altention. might to his allention. 1st The Invoice referred to man onot- composed of but ailors. It was reliebled with a special view to being good, lough metal eminently adapted for comage. On instructions provide for receiving ductile silver, of whatever pineness, on deposit for com on

pricisely the same terms from 750 thousandthes aprind; of this action was over 850 thousandthe fine. 2nd he han always conformed to instructions, o did so in this case; for they only regnire us to send "fine Relier" to tering the arrage fineness up to clarant "of possible! On deposits of eiler have so preponder. alid recently, as compand with gold deposils, that on fine selve has been reguered to meet the demand for fine silver hars. 3rd Not my long ugo, receiving through the Trusm. ers Department an intimation that the meller ofefiners Department in the Mint was temporarily short of fine Relins, on made up an Invoice of all one allrer abore Clandard, of formaided it at once. The arrays frances of all the selver Rent to the Munt from this office in 1870 to date is over standard. It has given us pleasure to make on housactions with the mit satisfactory to its officers; of me have often modified on our operations for the convenience of them. Regretting sincercly that we have no fine Ribrer at the present time, I am Respectfully bonns, (Signed) Andw Mason Meller Heliner N. Y. Assay Office

Suft + M. + R.
Explains & Controvert
Pag. Brother demant
In 25,000 021. fine
Silver.



MAXI 21 1870 United States. Philadelphia May 19th 1870 AR Linderman Esq. Dear Sir To your order, from First Nat Bank of Shawneetown, Ill, for 5.4. pieces, which please endorse to my order, and return at your earliest convenience Respectfully Yours Sembri, Thetum droft proberly andured bymorder- uneyuplean let the Hiteory propon send one Tastatement of the foed cominge of the mint at Pholais I Since Hushington before 9 the programs the

dolog the Expiration of hengen Bar arker + will putally require them Jagues To show the purely enjoyedly the new yorking has lenter agains? Envajo. Ithui & som malle out a dere care Done 1866, when they hisnigs furt enmuned The your and Am Jarkoa ell, If you have unhand a Mishington Koncolne gold Medal, plean Sand one Leve (P. O. D. in Currency) Juant I futher loudwelow of Reading Tholwood RM a very clever mace

St. R. Sunderman & Special Agt many Heft

Mants Statement

flydd Coinage

Sinica Jama 30/69

bo Explain advorsa

in placement N. 4.

assay Office Ban

advorsa



Wint of the United States, MELTING AND REFINING DEPARTMENT. RECEIVED ! Philadelphia, 18. May. 1870 Hon James Pollock Director of the U. S. Mint Dear Dur,... By the last Invoice of Dilver from the N.y. apay Office, I observe that it will require nearly 25,000 ounces of fine Silver to bring it up to standard, & I trust that you will oblige that Office to supply that amount at their own cost, and at once; otherwise the Silver may have to wait for weeks without coinage. Jall Booth m. F.M.

Pag. Booth

Mants n. y. assay
Office to finish 25,000
021. fine silve &
hing last invoice
up to Standard.



United States Assay Office J.S. MINT New York May 6 th 1870 MAY 7 1870 RECEIVED! Decretary of the Reasury & transmit herewith my official fond as Superint where of the assay office at New York for your Very Respectfully Govant Thos. Notero Sufundender How , James Pollock Director of the Mint Philadelphia

N. Y. assay office

Encloser official Bond of Sufit Action.

MAY 7 1870
RECEIVED

Up Treasury of the Cluited States. CASH DIVISION, Washington April 30 1/860. I should like your judgment at the withing endored Five Cent Sickel, which is thought here to be Spurious. Very Reslectfully Treasled Now Sat Pollock Sweeton of the Mint Philadelphia Pa

Me Hickok will please write to Twar! Spenner, that the counterfeit five cent piece sent by him was composed as follows: Mickel 13 per cent. Zinc 26 " Copper 61 " There is no zinc in genuine coin. This piece being right in color and neight, and the dies well executed, there seems to be no protection for any but skilled and

Careful observers, with the aid of magnifiers.

Treas. W.S.

Encloses Springs 5 & mickel for Examinations,



STATEMENT OF DEPOSITS

M.S. Assay Office THE New York.
MINT OF THE U.S., PHILADELPHIA, For the Procal Ofens ending Orme 30, 1860. DESCRIPTION. VALUE. VALUE. GOLD. DOLLARS. DOLLARS. CTS. 102 49 X 669 33 X 1559 728 45 X 703 468 44X Alabama. Arizona. California. Colorado, Dacotah. 2101799X 51204586 X Georgia, Idaho. 223111987 X Montana. Nebraska, 935924X Nevada, 7998877 × STA New Mexico, 24071951 North Carolina, 464480 X Oregon, 0 NITE 6754741 South Carolina, 557267 X Utah. 439 13 X 35866 X Vermont, Virginia, Washington Territory, 8396353 X 14014165 X \$5284098801 (Knoming) 159204975 Mint Bars Re-deposited, Fine Bars, 7645999 39133553 90249851 U. S. Coin, Jewelers' Bars, Foreign Coin, 223 69802 1 373793 14 Foreign Bullion, \$665789194 Total Gold, \$6 656 268 11 Gold Bars Stamped, Nos 2942 @ 7610

STATEMENT OF DEPOSITS---Continued.

DESCRIPTION.		VALUE.				VALUE.			
SILVER.		DOLLARS.			CTS.	DOLLARS.		0.1	CTS.
U. S. BULLION.	Arizona, California, Colorado, Georgia, Idaho, Lake Superior, Nevada, Oregon, A. Canolina Annulana PARTED FROM GOLD,		486	-3/ 238 17/ 328 559 792 386 95/	69	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	725	459	574
: : :	Mint Bars Re-deposited, (Denver) Fine Bars, U. S. Bullion, Coins Jewelers' Bars, Foreign Coin, Foreign Bullion,		174		78		887		
Sil	lver Bars Stamped, $\sqrt{f_{00}}$ { $2559@5$	597				13	707	400	04×
To	otal Gold and Silver,	Gold Silns	1,613	891	94	*8	271	250	401
To	otal Fine Bars, (Gold and Silver,)					\$7	363	668	15X

STATEMENT of DEPOSITS

M.S. Assay Office, M.Y.
MINT OF the W. S.,

PHILADELPHIA,

For the Fiscal Gear ending

Some 30,1870.

WEBSTER, MUSICK & CUNITER,

COMMISSION MERCHANTS AND GENERAL OUTFITTERS,

Flit Carson, Colorado, Lance 2.9 1870

Supt. Hel Mart

for I da goed amlanen y 165.29. We have heard northing from it as get will you meener adorne us of seach has been necessary answermen greatly abligar

Your Dany Rouply Hebster Munch & Cauffe

Harred Lugt Hos Minit Philadelphia Ra

This gild was we wideficited or the min May 7-170 bus Could not be returned to the vener for much of instructions, or some memorandem on the package by which sould

be Knewer Where is belonged It goes forward to day - 96 Thompson

Webster Munick & finish Kest fan e Co. Enquies abut Har ben sut. -June 29 Virectors Office 1870 How fast Place, Au Tosk,

Now 25 1870

Pollock

Sericetor of the Minist Dear dir Jour favor of 23 mist, has been recewed, and has been reported by we to D! Muller. Et may be some time before a reply is received from him, and in the wear time permit we to submit a few remarks whom the conclusion to which you have arrived; and to the deductions which may be made from the report of the Jedney hint submitted to you. The amount of pure gold as shown by that report was 27, 409 822 oz. The lops permitted by our law (new) on refining such an amount would be 1000 or 27. 41003. She actual lop was 3. 3953 making a gam, of about 24.02 03. The amount of huro silver was 3052 = 3

The legal lof (by the proposed new law) on this amount at the rate of 10000 would be #4. 79 3
The actual lop was 122, 391
Making a deficiency of 117.8123 Now I presume that the question in all refining sperations is how to do the work with the least lof of money, and that it is unimaterial in a practical point of view whether the lop be made in gold or in solver. The question as to willers proces then warrows itself down to this - Which is worth much in money, 24 ornees of pure gold or 118 omees of pure silver? And would it not be less costly to the fovernment to gain 24 owners of pare gold and loose 118 onnées of pure silver, than to loose 24 owners of gold and gain 118 onnees of selver.

In view of the greater value of the gold there can be no doubt that if I were a refiner and should contract to do the work at the majornum lop proposed by the new law, it would certainly pay we well to use the Miller procep, and to purchase Enough metal pure selver (118 3.) to make up the lop; because I should then have about two theres of the gain in gold still left after paying for such silver. If the operation would be profitable to an vidividual jit would be Equally profitable to the government - and there are in addition the other advantages of the Miller procep, of which no Estimate is made. I have the Louis to be Jours respectfully 6. J. Ferwicks

E. S. Renwisk NEW York Typlains further the Economy of Miller Chlonine process. 4 JUN 25 1870 RECEIVED!

JUN 18 1870) Montral 15 pme 1870 Jas Pollock Egg. Dearpi Jan lette of the 8th oam much ablys for the information for prie me. Since I got your lette I have seen In F. Hinches on Friam Minister That a leng talk with him about lanevery be. The comis have not come - he is Kenping Jun la mond with the Sels. I send Ju to 25 cent pactioned holis flanda. They are not munhered pu will percive of a bonniette of an denate on International Corney Weights-

Measure I a leading Merchant of this lity Mindly lent me to Mue Boot gen adres me to let . Spris it indeed all that you day git. a most va bush contulution to It blutter of turnery thomy I find I must have a copy to have indeved it prom dogland, Va far as I have less herocom ford very lettle said a, to Why me standard Stantolie adopted bethuj conclusive to my mind at any Tot. It's saw that when fold began & move of in Surve, the First, true they asked a proclamation deing budently the worning thing the other way, overvaluing the ford I so the Silver went of - Semething

the same I thrull junded with Jun silve dollar. There is a starthing statement in the Dehrein evidence page 13 question 265 which please look at . It declay his belief that England would have become a very pour country has it lik been onny & the accidentof the selver Slandow abroad hairy been chopped - I suppose be many by seme of the badring weeting. of Come this is a strong Statument. but I can easily see the dauge of Ungland having a poldstandard with silver gradually rising in value & other natures dealing with be retaining the Telen standard. The truft is, as it appears to me, that as the stander is a thing tender legal continue and as the comparation Um Brown Montreal. Can relosing two 25 of Motes

Enclosing two 25 & Motes
Canadian Coursey

Oles giving his views

on currency, coinage

gold & Silver + = + =

Rest June 18-1870

taling of ford & selver alter very Slowly very findrally there call be little deffically in quarking against depresenten ette way I weren of a proclamation. The bluctuations between the two Sattrutule The presence of hape money which hidred cause most of the mere bluetustins in all prices. doling Os we have paper Curreng we might have turble to preserve a doubt standerd. It appear to me that I low can do all that gold cando, & something more in the way of small payments. In fact I regard this as pelly primed. I have put to perfer your our luterating rewarlly as This print from Jun Se fest for 68-69. In lille well to thurs what the muster of the Tenglish Mint Throlls about it. with best regards faithfully lo Thour

United States Assay Office J.S. MINT JUN 15 1870 New York Same 14 1879. RECEIVED! Der: I send herewith Receipt

10. 760 for \$5084.85 available profito from

Van. 1st to Mich 31st, 1870, transferred to the U.S. dreasury, promuent to act of July 2000 1870 (1868) In consequence of instructions from the Secretary of the Treasury, that one of the triplicate receipts of the Asst. Treasurer for profits transferred should be forwarded to him, I am mable to comply with the request contained in the Directors letter of Nov. 7th, 1868, to transmit one of said receipto to the Department with the bullion Viry Respectfully, Top James Pollock, 2 Umy Obt Servant, Director of the Mint. 2 hos Contendent. Superintendent.

No Thousand United States Treasury. New=York, Luce 14, 1870 I Certify, That Chas, & Folger, France U.S. assay Office Tul, this day deposited to the credit of the Treasurer of the United States Two themsand & eighty four, ____ = 50 Dollars, on account of Franche of Available Profit, from Sur Ist. to March 31, 1870, Musuaul & ach of July 20, 1868,

N. Y. Assay Office Enclosing rect for \$ 5,084 st available profits transferred to Wist. Treasing (Jan 1. tellet 31/70) also states he Cannot Send rec't to hearing Deft mitte bullion



MINT OF THE UNITED STATES,

MELTING & REFINING DEPARTMENT,

Philadelphia, 22 June. 1870 Hon. James Pollock Director U. S. Mint.

Dear Fir,

There read the Report of the Tydney Branch of the Royal Mint on "Miller's le Morine Process" with much pleasure, having previously examined it in the Chemical News of 1870.

While the Esperiments make a pair Exhibit of the Process, by having been conducted on a working scale, on over a half million of dollars worth of native gold, the results rather confirms the view I formerly took of the process, from a mere study of its principles, the danger of a loss of silver by volatilization beyond what would be allowed by our ordinary processes. The loss of gold is appreciable, atthough than I would have supposed to be likely to result. Please note the result according to my mode of viewing it. There were operated on 30, 692.71 oz. of gold

groß weight, containing 27,409.822 pure gold, and 3052.207 ox. pure silver. The absolute loss in refining was 3.395 ox. pure gold, or 124 of one thousand the of the Gold. The present law allows root wastage of the proposed new law root; hence the loss was 16 of the present and \$ of the proposed legal wastage. This result looks very fair.

The absolute lop in silver was 122.391 ox. pure silver or 400 of the whole amount of silver present. The present law allows 7000, 4 the proposed new law 15000. The above is 400 lofs, or 20 times the legal wastage at present, and 27 times that allowed if the new Mint law pafs.

While it is probable that some of the silver in the smaller deposits of gold, according to U.S. practice, would not be reported, of therefore The proportionate lops of silver would not appear as great as the above numbers make

MINT OF THE UNITED STATES, MELTING & REFINING DEPARTMENT,

Philadelphia, — 187 -

it, yet it is manifest that the absolute lop would be far beyond the present legal allowance; and consequently ou Mis ground alone, Miller's process, altho exceedingly tempting spromising, cannot in its present condition

be employed in the U. D. Mint or its Branches.

Having been once a chemical manufacturer, I can readily imagine that the practical difficulties of flux, fuel, metting pot, chlorine & its apparatus, & mode of operating will all be conquered by skill, both chemical I mechanical, fat from my observations on the volatility of meltet silver 4 of chloride of silver in a gaseous current, even of atmospherie air, I cannot perceive nor conceive now Miller's process can be conducted without a too serious loft of Silver.

very truly yours Late Booth

Pag. J. C. Booth. Opinion a the Report of the Siring Br. g the Royal & Millers Chlorine Procep." June 22. 1870

19 Part Place, Alw Fort How. Jas. Pollock Serictor of the U.S. Minis Dear Tir he reference to your favor upon the subject of hullers Groces of Refining Gold, I may say that I comrunnicated the substance of your letter to hu Millers agent, and that he has sent me statements of the operation of the process Aft the Royal Mint at Sidney, from which you will be able to Estimate

the cost of the process in this country. I trust that the infor-mation contained in these papers will induce you to tate a more favorable view of the watter than your letter undicated had been taken by the Offices of your department. Jours respectfully E. L. Kriwicks Copies of the official statements are herewith Euclosed

D. S. Renwist New York Enclosing Copy of Report & Statements of the Ardney B. 9 the Regal Ment, noth regard to Millers Thome proces Rec Suno 22,1870.

(copy) Report on Experimental Refining by Millers Chlorine Process. Toyal Mint Sydney Branch Sydney 13th April 1869. Ehe Deputy Master Royal Mint. He have the honor to inform you that in accordance with your instructions dated 8th august last Mr Millers process of refining and toughening has received a fractical trial by having been applied to the biettle gold imported into the Mint during the quarter ending 31 March last, and that we are enabled to lay before you the following report. Referring for the details of the experiments to table A annefed, the results may be summareted as follows:

Jet The amount of alloy of rerated on consisted of 30,672 ounces which contained according to assay Étime gold 27,409 ounces 893,6 parts in Ettine Silver 3052 " or 99,5 parts in

Dase metals 211 69 It The refined gold froduced amounted to 27.620 owners of avorage assay 991, 56 parts in 1000 (. The two highest assays being 996 and 995). The gold was invariably perfectly toughered in the first part of the operation. *3. The amount of silver extracted was 2718 ounces of avvarage assay of 966, 7 parts in 1000 while 233 ounces or 7.63 Ther cent of the silver operated on was left in the refined gold. 4th The loss on the whole operation consisted of a. Loss of gold 3. 395 ourses b, Loss of Tilver 122, 391 ounces These amounts calculated for the quantity of gold alloy operated on shews the proportional loss to be Gold 11 parts in 100,000 Tilver 399 " " " although not taken into account this loss of Gold and Tilver is Considerably reduced by the amount of these metals found, according to assay to have been left in the tailings from the amolganation of the pots and ashes (see Table A) as well as that contained in the stuff

recovered from the flue of the refining furnaces, the particulars of which are as follows. as follows. a. Assay of Vailings from amalgamation of pots and ashes which were found to contain Gold 1. 249 ounces Tilver 34.608 " b. assay of stuff from the short horizon. tal flue belonging to the refining furnaces which was found to contain
Gold 0.441
Silver 0.843 It is more than probable that the remainder of the flue as well as the bottom of the chemney contain also a small amount of both metals. The following is a full description of the whole process as adopted in these experiments: The preliminary operations include the borasing of the melting pots and the charging of the chlorine generators. about 100 french white clay pots of Not 14, 15, 16 and 20 were filled with a hot concentrated solution of boray which was allowed to remain in them for about 10 minutes, when it

was poured off: the pots when dup presented a thin coating of crystallized borar on the inner surface.

Vos chlorine generators were employed they consisted of the best glazed earther. ware acid jars of 10 to 15 gallons capacity with tap holes at bottom and well ground opening at top, to which were fitted with india subber washers well ground leaden lids strengthened with cash two openings, one closed with a cork and holding the safety and delivery tubes, the other for charging the oxide of manganese, capable of being closed with a leader plug covered with an india subber washer. The lids were well secured by being secrewed to iron bands passing under the bottom of

The corks holding the safety and delivery tubes were made perfectly gas tight by means of a thick coating of melted sealing way.

The generators were heated by means of galvarnized iron water baths (under which were gas burness) and were sus = pended by iron bands to about half their height within the water baths.

Each generator was charged with a layer of quarty pebbles through which the Rafety tube passed on this layer was poured from you to 1000 ounces of bindide of mangarise in small pieces (about 1/4 inch) free from powder, The hydrochloric acid being supplied through the safety tube which strod about 8 feet above the top of the generator. By means of india rubber tubing attach. ed to the top of the safety lube the acid when no longer required could be driven up into a receiver and used over again in future operations. The oblosine gas from the generators. passed into a leaden pipe fitted with branches of the same material opposite and each furnace the gas was then conveyed through undia subber tubing 1/4 inch diameter to the clay pipes which passed through a hole in the loosely fitted lid to the bottom of the pot containing the melted alloy. In order to ensure perfectly light joints between the india rubber tubing and the lead, glass and clay kipes a coment was used consisting of a thin solution of caoutohouce in chloroform. By means of screw clamps applied to the

was poured off: the pots when dry endia subber supply tubes, the chlorine gas could be more or less shut off according to requirements. For quantities of about 400 ounces of gold of about 890 assay a No 16 clay pot was used which as a precaution: ary measure was placed 3/4 of its height within a black lead pot. The gold potted at q a, m, was leady for the chlorine gas at about 10-15. It has been found advantageous to add from 3 to 4 ounces of Jused boras to the melted gold previous to inserting the chlorine pipes, since if borax is added before the gold is melted it acts too much upon the lower from tions of the feat. The chlorine was supplied to each for by one or sometimes two clay pipes and the supply of gas kept up by repeated additions of common hydrochlorine acid through the safety tube - 400 ounces of gold of about 900 assay required about 2 winchester quarts of hydrochlorine acid for re-The pressure of gas was indicated by the cheight of the col

in the safety tube which also afforded a ready method of regulating the supply of chlorine or of detecting any leakage or breakage in the clay pipes or crucibles. The average height of the column of acio was about 84 inches for 400 ounces of gold or 20 inches for every mel of gold in the pot. The time required to deliver suf= ficient chlorine to refine about 400 Dunces of gold of goo assay was found to be from I to I hours according to the size of the pipes employed and to the tate at which the gas was generated. On the first introduction of the Chlorine pipes, which have to be carefully and gradually hetated and the gas allowed to pass through them while being immersed in the motter gold a quantity of fumes escape (the chlorides of some of the baser metals contained in the gold. These fumes cease after some time; while the end of the refinage is indicated by other fumes accompanied by a preculiar flaming which may be observed on removing a small plug which fits into a hole in the lid of the pot. The

end of the operation is further and chiefly shown by a characteristic reddish brown colour which is imparted to a clay pipe when held over the hole before mentioned and exposed to the escaping fumes for a few seconds. Then these phenomena occurred, the gas was shut off and the crucibles taken out of the furnace. The lid was then servoved, the white pot lifted out of the black one and allowed to stand

for y minutes, when the liquid argen-

tie chloride was poured into non moulds while the gold which was

solidified in the crucible, fell out

in the shape of a cone, soon after the

pot was turned upside down on the

iron table.

The lup of gold was then slightly scraped and at once plunged into a strong solution of sodie chloride to free it from the little argentic chloride adhering. The salt batte was kept in a wooden tub and all contact avoided with any metals which would reduce any of the silver on the surface of the gold.

cleaned was remetted and proused into

engot moulds, The argentie chloride obtained contained a considerable quantity of gold averaging I per cent on the amount operated on and which appears to be chiefly in a state of combination with chlorine and probably silver. To free the argentic chloride from the gold it was melted (covered with a layer of fused borass) in a borased clay pot with the addition of about 10 per cent of silver solled to the thickness of a florine. as soon as the whole was throughly melted the pot was taken out of the furnace and allowed to stand for about 10 minutes; the argentic chloride was then poured into large iron paus and the button of silvery gold remain. ing at the bottom of the pot was re= metted together with the scrapings and the addition of a little soda. By these means it was not found possible to remove the whole of the gold contained in the asgerthe chloride. On an average about of parts in 1000 were left in the seduced silver and the proportion was never less than

2 parts of gold in 10,000 pasts of reduced silver. The argentic chloride thus obtained was readily reduced between iron plates in the usual way. The alloy operated on was treated in y3 separate pots containing on an average 420 ounces, this amount being regulated by the assay of the

gold and the size of the pot employed. Horking on gold of any average assay of 890 it was found convenient with the apparatus at our disposal to refine 2 pots in a working day (9 a. M, to 4 p.m.) and to deliver within those hours about 98 percent of the gold contained in the alloy operated

on ma refined state; the remainder being retained in the argentic chloride as already described.

Horking with two generators each charged with you to 1000, sunces of binoxide of manganese of about 80 per cent, the former required but three charges of manganese the total quantity used being about 300 lbs and that of Hydrochloric acid 10 Cent.

Under these circumstances six parts

of Hydrochloric acid have chloridized about one part of silver besides the base metals contained in the alloy operated on and allowing for all waste of gas.

Only a very slight smell of chlorine was observed during the operation of refining, the only time when chlorine was distinctly perceptible though with out marked inconvenience to those engaged was during the pouring of the argentic chloride as already described.

Elson table B (also annexed) it will be seen that the total expenses incurred in carrying out these experiments (exclusive of plant) a mount to £ 1/2, 17, 10 being at the sate of about one penney per ounce on the weight of the alloy operated on.

On these expenses the labor of one man only has been charged, the superendence and occasional assistance required having been supplied by the regular Mint staff. The author for two additional furnaces, chlorine generators and emidsies forming a small permanent plant, was under £50

on account of which £5 has been charged for wear & tear.

experiments is duly taken into account no notice is taken either of the loss of silver, or of the amount of silver left in the refined gold, since under fresent circumstances the silver does not appear as any actual loss to the nint.

On considering the expenses incursed in toughening and refining these 30,672 ounces of gold it is but fair to take into account the cost which would have been entailed in tough = ening the same by corrosive sublimate, the process hitherto employed; by which no silver is obtained, and which may be stated as not less than £ 50. The whole of the brittle gold which is likely to be received at the Mint can be toughered and refined with a slight extension of the present plant. This with a small additional refinage of tough silvery gold would admit of all the bullion being brought to an average fineness of Lay 23 carats thus ensuring a uniform mixture of equal parts of

silver and copper forming the according the etandard bars prepared for in the etandard bars prepared for coinage as has been the case during the past quarter, and the advantages the past quarter, and the advantages of which it is unnecessary to enumerate.

The are moreover of opinion that

The are moreover of opinion that the cost of additional plant, labour and materials required in order to be able to refine the whole of the gold received by the Mint would be more than fully repaid, so long as the gold contained three per cent of silver.

The have the honor to be

Gir

Your most Obeet Gervants

(Tigned) Robert Hunt

Metter

(Tigned) A. Leilens

Assayer

Sidney Br. 9 the Royal Mint (Copy) Report of Meller, Miller's Chlorine mocely. Ru at Willent Phil mu 22/70

Vint Sejdnerg Datent Chlorine Process

racted	Ends		apparer	et Waste	
ing by assay	containing	g by assay	in operating		Cremarks
Silver	Gold	Gilver	Gold	Tilver	
vinces	Unices				
6/3/7	7	Mary Inc.	542	16 383	Excessive loss of silver pracie
40 586	17 263	337			
69 116	11 581	2 759			
183 483	37 817	18 813	859	AND DESIGNATION OF THE PERSON	THE RESERVE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN
181 742	23 300	6 450	1219	The second second	
148 599	16 830	5 770	1380	11 210	
95 941	20 436	5 714	614	10 162	
62 3 70	13 231	4 349	514	2 954	4
189 083	39 500	12 000	1177	14 122	
60 173	12 266	4 334	298	6 767	
63 364	13 500	7 800	401	1884	
449 448	64 718	25 632	5 703	34 942	
110 467	15 826	7 434	1219	8 119	
207 613	35 279	12 171	1035	13 895	
61 879	10 004	3 216	111	4 615	
109 775	23 198	10 932	283	6 482	7
403 433	84 801	21 729	4 392	8 319	Excessive loss accidental
	429550	149 440	21 310	180 480	
131 198			1 121	10 886	1
627 783 Tota	l apparent o	vaste	22 431	191 366	
	d by amalgam.			68 975	
10	ss in Refin			122 391	Manager and American State of the Control of the Co
7 902					
Porton	tional loss	on Gross	veight of	Gold	11 harts
011	also Tad		}	Sil.	11 frants in 100,000
alloy	operaren o.	N		suver	99 "
			The same of the same of	The state of the s	

A Experimental Refining by Miller

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							y Groß							eight	Court	aiver
			Gr	eld	1 Le	lver			Gold	L	Tile	en			Gol	d
1	Cun	ces	alu	rces	Our	nces	Our	ices	Our	ces	our	rces	oun	ces	our	ces
							1113						73			600
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	1346								The same of the sa		The same of		74			200
	2649												197			830
	1769									9	18	659	18m	30	4	609
	1889										A STATE OF THE PARTY OF THE PAR		155			202
	1365												99			328
					4		564				6	949	63	00		435
-	2444	1	-			4	The second second second				14	org	193	10	23.3.2	174
	994												any			067
	815	90	734	4310	78	326	725	36	720	282			63			127
le	3646	28	3092	204	532	251	3041	95	3019	721	22	229	458	20	2	062
-	2024	70	1872	395	145	262	1874	53	1835	288	19	242	112	35		062
1	1443	58	1518	604	244	779	1493	18	1482	080			210			210
	644	50	599	045	74	457	593	58	588	831	4	749	63	65		099
12	3371	05	1210	769	139	770	2203	83	2189	249	14	581	113	00		039
1	4302	65.	3798	559	436	318	3730	58	3707	743	22	834	4/3	03	1	623
							27166	070	26940	370	225	700	2583	80	18	592
e.	inds d	elive	red lo	Bull	lion of	fice	454	377	447	021	7	356	/32	55		
30	2672	712	7409	822.	3052	207	27620	447	27387	391	233	036	2718	35		
													deliver	ed to!	Bullion	r Office
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9						P. n.	0.00	()					doss e	n ren	relting	+ assay
//	rean	assi	ay of	alle	MI	Gold	893,	6	mean	vass	ay of	refine	d gol	d 991	1.56	
	open	atec	d on	/) !	Silver	99.	5)					extract			
								Strange To	· · · · · ·		11	The sales are	1	100	1	

The alloy was metted in 73 pots averaging 420 ounces each

Detail of Expenses for the Quarter ending 31 March 1869 Loabour 1 Floreman 13 weeks at eff & 31.4.0

Fuel Coke 2/2 tons as sof £ 6.5.0

Charcoal 20 bush as 76 0.10.0 10.5.0

Pols chemicals & 10 & 10 & 10.0 Cohite pots A=20 og að 2/3 £0.15.9

"16 80 1/9 7.0.0

"15 30 1/6 2.5.0 £11.5.9

"14 10 1/3 0.12.6

Chloine pipes

Chloine pipes

Black lead pots A=25 5 að 8/4 £2.1.8

20 5 6/6 13.11 " 20 5 - 6/8 1.13.14

" 16 10 5/4 2.13.14

" 12 5 4/- 1.0.0 10"15"5 52"0" 5

" 8 5 2/8 13" H

Covers " 25 5 2/6 12.6

" 18 20 1/9 1.15.0

Sturers 5 1/3 6,3

Cyide of Mangamere 3 cut 4/6 13.6

Hoydrochloric acid 10. a 4 pertil8.13" H

Sundies V I tubing and washers 6"0"5 Gendries V Ttubning and washers 6"0"5)
Boraf 16/4 Salt 5/ Plaster Paris/2 1"2"6 8"4" 11 Animonia of chloroform 10/12.0) Hear + tear of additional plant say 10 percent on out. \
Loss of Gold in Refining 14.8.5\19" 8" 5 Cotal cost of refining 30,672 ounces £ 112"17"10 Lowest estimated expense of toughning)
Royal Mint the same by corrosive sublemate \$50"0"0"0

Sydney
12 april 1869

Satent Chlorine process
Memoranda respecting Gilver Net weight of Fine Silver contained in the alloy operated on (according to assay) \ \ \frac{\pi}{2052,207} Loss in refining the 122.391
do in remetting 7.902
Vassaying 7.902
Votal lop of Lilver 130,293 130.293 amount remaining with refind Gold 233.056 Mett weight unavailable 363.349 Net weight delivered up Ot 2 619.883 The silver has been valued at of per ounce (Fine) to allow for the extraction of the gold therefrom and for the expense of exportation. Cost of additions to melting House 2 Furnaces £10-Gas water varain fishes 10-2 Generators fitted with) glass safety tubes ve 5-15-Gas burners, Lead fripe to 6-0 fittings for generator 5.0 Sundies 2-10 2-10 water baths 1-10 50,0

Sidney Bed Royal Mint (Copy) Statements of operations of Miller, Chlomie mocep Ree at Welling Jan 22/10

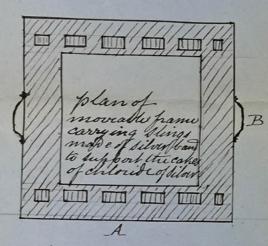
Thoyal Munh How: James Pollock 13 June 1870 Doiestor of the U.S. Mint I have just received a letter from the gentlemder who is acting as my Jagent enfelosing your reply dated 16 Mdi:1870 to an application on his part for the trial in the U.S. Ment of my process for refining gold by means of chilorine gas. allow me to thent you for the courtely you have shown mefer the matter. I have read the very careful Reports of the gentlemen to whom you referred the Subject (Mesters: Echfeldt and Booth) whose offerior and criticism I connot but receive with respect. I am not surprised at the objections they raise, as they were, many of theten, the difficulties Imyself peared I should ensounter in carrying out the method. as however for the puft lighten mouther me other method of refunity or of foregluing has been employed In this Ment, Wand now in a position to State what in practice over the results ottoms and to what esetent the possets and objection raised by Messers: Echfeld and Booth affect the operation. The fact that, after twelve mouther severi treal on various qualities of gold, the Government of this bolony have adopted my process in This Mut, Couch of the gold coming to which, is of similar character to that of

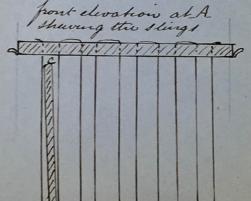
Got Referring Teplies to objections The accompanying papers and Reports will afford general replied tot the objections made by Meters; Verheldt and Booth tot the methor of refining by means of Chlorino Gas, but it may also be destrable to givelier a separate form regiarles on and replies to the societs braised. It is objected that clay pots are employed which are lefable to practured. In this Mult-we use French day cruebles made by De Peuelle (Late Payen) Plue Pherre Lever, Paris, Mod 17918 which will refine from 600 to 700 ounces at a time. These cruckbles very seldow break if carefully heated at first; but to avoid the possibility of loss for place their within a black tear crucible lar quard. 2 nd It is objected that the gas employed is dangerous if inhalled, to lese and health. Du the semple form of apparatus employed there is in practice no difficulty encountered from this Caulo. The working experience no material inconvenience from the occasional buffing escapes of gas that occers. - There are blacky many bifilors, including very many ladies, to the Ment who are always flower suito the apartment when that process is in operation and until toto that it is in progress they are Seldow acrase that anything weeseaft is going on, to far as the sente of smell is concerno John aware that these are suche assertions which well hardly be creetited until trial is made: but they are true. 3rd 4 th and 5 the objections relate to the volatilization of the precious suchals and are en my opinion The most weighty objections adduced, lether theoretically on prochecally to this methor of refining. IT can only reply that in practice theoretical be auticificated. - During the year 1869 those ever refund by charing at the Lydney Branch of the Proyal Much 202663 Tounes of gots alloyed with Silver, varying in alsay from about 850 to 960 and overlaging

averaging 897.8. The amount of goto lost from volatilization and all other causes was 22.341-06 being less than would have occurred if the gold has been toughered by corroseve sublimate as usual, while the total loss of selver from all causes was 374.5 th This is more than would have occurred with the Sulphurie aced process but the addition amount is slight when compared with the Saverg in other respects. 6" The bestte objection is that it is unabalisted to very selvery gots though possebly suited to gots Thor wil stown. I speal to the practical results obtained the this Must. Much of the gold above referred (202,663 th) wheel was referted during 1869 was of assay about 850 (upwards of 40,000 th) the found 100 greater difficulty in dealing with this then with the rucher gotol. The time occupied in treating a pot of this got (say 600 th) was in all about three hours and the resulting fine goto allayed from 993 lo 996.5. Albe did not delet aley appreciable addeletional loss in the refined of this poor alloy. The Beach of New Lealach have been using the process in anchtand for the past fifteen mouths where the assay of the gold is only about 600 having purchased the right to luse it with spicial reference to the poor gold of that province the It is objected that shitted Evorhmen would be requirted. The operation in the Lydney Mint was at first performed single handed by an assayer's I fireliaho; and was bub sequently taken in trand by one of the Melters firemely, with the abbitour of the foreman occusionally, under the general Superentendence of courte of the Multist Hepener The process is enterely conducted in the Bank of M. Lealand Hefenery at buckland by an uneducated but intelligent recow who was originally a bricklayed and subsequently acted at Welters aled assayers firemant in this Ment. He learnt the aperation in a

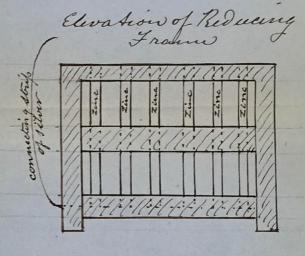
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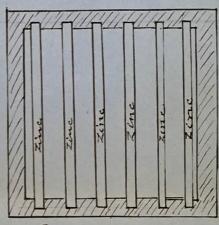
Reduction of Chloride of Silver D. VSeibeus apparatus



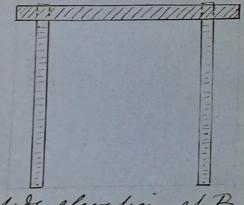


made of one continuous strip of Silvericities cake of chloride (C.) in position in ope of the loops





Plan of Reducing France.



side elevation at B

fortnight and then went to auchtour where The enaugeration the process for the Bouch and is still working it for them. With reformed to the cost a detail of expenses is given in the accompanying Reports of Meller. Hunt & Leibius; but it may be stated that the result of the working of the process during 1869 was, that 202,663 ounces of goto ally were refine at a total cost of \$640 induding Labour and loss of both got and Silver and it must be remembered that the cost of aced! and apparatus is from 50 per cent to 300 preens more how thank in Europe. The reduction of the chloride of Selver produced in the operation is very conveniently effected by the apparatus now it constant lese in this Muit-contrived by Dr Leibius one of the assays of this Establishment which is an engenous Vapplication of the precepte of the chlowde of silver ballery of De La Rue & Miller. a detaited accopered of it is among the papers (printed) accompany this. In conclusion would draw expecial attention to the very remerkable toughness which is conferred for the most brittle gold by the process of refereing by Chloride -Troyal Must

14 Jane 118 70

Fr Bowyer Willer The Syphing Thut-}

Frs. Bowyer Miller Assaya Sidney Mint Auswering objections process. La fa Rec 2 Sept 5. 1840

7. B. Milles assayor Royal Muit Silling NEW So. Wates by Obloring gas. Res apr 25/70

This letter appears not to require any further answer, than was given some weeks ago, in the statements made by the Meller Refiner, & the Assayer. The process mill not suit our operations; and as for other offices, they must answer for themselves. I presume om replies une stut to his agent in M.y., M'Renwick. April 29. V 872. J. Polloch

note of Duretter april 29.70.

Howald Minh Mydrey Minderman Esq Malailand South toals horsof of eneloppy you a februice for rafigury and to fluing forget most suggestiful and pedirok feal in this Might blury it is your in active operations Ath Lavery effected bying equal to Haff the entire expenses of blie de Hathwent. Patrabildon is also being made forfels adoption in the Maint wholl to be established un Woldsourne.

My be about the light of the sound of the so to pely a befolion in the Which Apply a statistically

I believe it would be found encuently suited for the refusing of amkricas got and thous be much gratified if you would have a few experient in the thuted States Mut Here I have had pryudies and withed interests to content with but the excessive simplies of the operations requered, have bun too pulpable to admit of doubt and its adoption Woll toom be general here. The Bank of Mew Testands of ounces blonly by it The preliminary Weperements, byfor its final aldoption in the Lydney Mint-extended over al period of twelve mouth, and 200,000 Hevere refired. and from this date all gots coming ento this much are le be subjected to this process.

Stag April 23.70
Dear Fir,

Sear fir I have acknowlessed the receipt of the estitles letter and such sure and informed him that the same han been turned over to you as my successor in office for such a string as you might deem from, buy they yours I that yours

Hon Jumes Pollock, Snedter 16 D. Muis Philad.

SYDNEY MORNING HUM GOVERNMENT OESERVATORY, SYDE GOVERNMENT OESEBVATORY, SYDERY
Latitude 139 51/41/. Longitude 16 h. dm. 46
Tark time ball is drapped daily (Sundays excepted) at bydney seam time, or 16, bon, 16s, and, Greenwich m. lar, have not mine, or 16, bon, 16s, and, Greenwich m. lar, Earnmetere corrected to 25 Fabs, Sydney near time, Statement of the Statemeter of Wind estimated in line, per square foot. Venety of Wind estimated in line, per square foot. Venety of Wind estimated in line, per square foot. Venety of Wind estimated in line, per square foot.

Heandidy, 0 to 100,
Choudy say, 0 to 10,
Choudy say, 0 to 10,
Relectricity, 0 to 90.

December 77m, 1869. Civil Reconfee.

Temper Wind (2) It to the men who have sworn to maintain the Crown by their authority in the Parliament? Is it to the Volunteers who are under in their public or private capacity that we have colonics are a burden—that they are no longer there statements made from time to time, that the required; that they may go as soon as they should not stand on the order of their going, should not stand on the order of their going, should not stand on the order of their going, should not stand on the order of their going, should not stand on the order of their going, should not stand on the order of their going, should not stand on the order of their going, should not stand on the order of their going, should not stand on the order of their going, should not stand on the order of their going, should not stand on the order of their going, should not stand on the order of their going, should not stand on the spatial state of the spatial state of the spatial state. We have shown how much advantage we derive from a connection which here long ago ceased to be any burden to the parent State, and which, perhaps, from its very inception, if a calculation were fairly made, might prove to have been without cost. But it is a serious thing for any head of a family—for any person possessing permanent colonial interests, to know in what light his allegiance is held by those who have the power of the sword. Against what sword it is that he is called upon to contend should the question be reduced from one of opinion to one of demonstration and the ambiguity of the Ministers in the order. it to the men who have sworn to maintain the of efficials, whose salaries would eat up a vast proportion of the money they collected. It has been his policy to exaggerate this view of the case, and it yet remains to be proved whether he might not be disappointed in the assible economy of the procedure. The ar-Delicates Preservencias Strupt. Struct.—Yes
word
to eligible and Bernstein annual penie of the above chose
you all the structures are the structure of the above chose
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s. At
sight,
osition
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t work
e right
stree,— In fort above cfficial expenditure should be incurred. The situation is one in which there is the maximum temptation—to revert to the Custom—house where additional revenue can be obtained with little or no increase of official STATIONS Tempera-in chade, Humidity outley.

But then it must be remembered that

But then it may be used year 935 But then it must be remembered that the same argument may after year on each occasion when a small additional revenue is required, and duties be aggravated by small continuous increases till the commerce of the country is ruised by the burden. It is quite certain We repeat, we have reason to complain of the ambiguity of the Ministers in throwing out general propositions and in making offers and uttering predictions, without forecasting any form or shape in their accomplishment. In answer to all the projects at home for the better representation of the colonies we have 185 29 816 68 0 80 8. 100 20 680 76-7 63 8. increases till the commerce of the contry is runed by the burden. It is quite certain that there is a point beyond which Customs' to the country, and that injury must be call position to the country, and that injury must be call position to the incomplate an indefinite recourse to the Custom polate an indefinite recourse to the Custom polate an indefinite recourse to the Custom polate to supply funds for the growing expenditure or successive Ministries bidding sgainst each other for popularity by a lavish disbursement of the public money. If we cannot retrench; if we cannot put an absolute limit to the proportion of public expenditure, there must at least be a limit to the restrictions imposed upon commerce, or the goose that lays many of the golden eggs will be smothered. answer to all the projects at home for the better representation of the colonies we have little more to say than that we do not require sufficient for our blick we become any part of much than teo little. To resign any part of it, however, is just one of those dreams which no one would think of examining.

It is demanded that we should pay certain of money for military and naval protections. days. sums of money for military and havat protection, and to this, we presume, there is no great repugnance. There is nothing in the circumstances of the colony to make this payment onerous or impossible. All this has been settled in principle, and there will be no difficulty in arranging its details; but this perpetual talk of separation between the colonies and the mother country creates a specific lays many of the golden eggs will be smothered.

Many writers on English finance have contended that the combination of direct and indirect taxes establishes on the whole the most equitable state of things. They argue that neither form of taxation can be made by itself unobjectionable, but that when they are combined the defects of one system counterplance if they do not correct the and the mother country creates a specific danger in every colony where there is a possible difference of opinion, and particularly D. where there is a body of persons who, without any reference to the colonial prosperity, or to the future consequences of their conduct, would be glad to spite the Government of Engmade by itself unobjectionable, but that when they are combined the defects of one system counterbalance, if they do not correct, the defects of the other. Supposing this to be true the equitableness of the combined systems must be set against the expense of a double staff. No reliable estimate that we know of has yet been made in this country of what will be the cost of collecting any income or property tax, or as to what would be the financial results. If the municipal system were more developed than it is, we might have before us materials for determining the value of all fixed property in land, and it is undoubtedly true that such a municipal taxation ought to precede direct taxation for the purposes of general revenue. The country is behind-hand with respect to the levying of local revenues, and it all were done in this way that might and ought to be done, the question of income-tax might be Doutponed. If the Government will commence the resistation of its programme by looking to the property of the country for funds to carry out local where it has not been voluntarily adopted, it will ease the general revenue of many of its burdens, it will stop one great source of growing expenditure, and it may hold back, sine die, any further scheme for taxing incomes or property for the supply of the Treasury. The best way at present would be glad to spite the Government of England by raising everywhere local disorder, dissension, and rebellion.

Is the members of the Ministry entertained any hope that out of the mass of electioneering speches they might get some clue towards the formation of a financial policy, they must have been disappointed. If in the course of these various addresses there have been any original remarks on finance, they have escaped our notice. There has not been enough said to indicate any very defined public opinion—certainly not enough to indicate to any Minister wishing to follow in the wake of popular ideas what is the way in which he should walk.

There has been a pretty general though like do hich prise There has been a pretty general though not exclusive condemnation of ad valorem duties, and there has been the usual condemnation of extravagance, and demand for sensing the men nent stant unjust, and the various schemes of the present nder Ministry have afforded several speakers matter nted for ridicule. The candidates most new to politics have been most vigorous in their the not. for taxing incomes or property for the supply of the Treasury. The best way at present to avoid an income-tax is undoubtedly to exdemand for economy, but when they have had a little experience of the baiting it is necessary iced, to give a Minister before they can get him to put in the Estimates the vote they require for see tend the municipal system. that Balmain Election Riots.—Their Worships Messra. Smithers and Lexton composed the Bench at the Water Police Court yesterday, for the purpose of disposing of the following remaining cases of assault arising out of the late election riot at Balmain:— Joseph Watts v. Mary M'Kcown, Francis M'Kcown v. Thomas Hartley, Edward and John M'Leer, James English v. William Elvin, John Glennon v. Alexander Turabull, same v. Robinson and Broderick, M'Kcown v. Booth and Stewart, M'Kcomn v. Maher, M'Kcown v. Hartley, Watts, and Siewart, Maher v. same, sense v. Stewart, and M'Kenna v. Maher, M'Keown v. Hartley, Watts, and Siewart, Maher v. same, sense v. Stewart, and M'Kenna v. M'Keown. The information in all of the above were withdrawn by the complainants through their attorneys.

First.—About a quarter to 5 o'clock, yesterday evening, the same of first was given at the Insurance Fire Briends. their constituents, and when they have found out what labour it entails to get a out what labour it entails to get a majority in the House to sanction the vote, and what is the quid pro quo to be given for the service, they will come to qualify their views. There is no doubt that the cost of government is enormous; but it is equally certain that while retrenchmen is a popular cry for the member; it is New TERRIFFIC STORM AT GLINI INNER.—The correspond the Armidale Express writes—The great seem injured or ruined many hard working, homest attement, depending on their crope, find their nopes blasted, storm came from the south cand south-cast, and seem have taken up only a narrow strip of country. At S henge, Mr. Fletcher and a few others escaped the thirtie-in fact, some of it never touched. But towards Innes, the whole of Mr. Prector's farm, some forty-acres under cultivation; Messrs. Rummings's, som part of Mr. Redgers's, and a few corners here and the the eastern side of the road, were liverally smashe the ground—so much so that it is impossible even to tion. tions that but it is equally certain that while retrenchmen is a popular cry for the member, it is the most unpopular duty for the Minister.

Many speakers have expressed a preference for taxation through the Custom-house as the expired and observed maked of setsing professions, that such duties should be levied for the purposes of revenue, and not for the purposes of protection. But if protective duties are injurious, the effect on the local industry and foreign commerce of the country is the same, whatever may be the special purpose for which they are imposed.

Protectionists are equally content with them even though they should be levied solely to meet the necessities of the public expenditure, and free traders are equally intelerant of them, though the Government imposing them may have been altogether innocent of protectionist proclivities. It is difficult in enfercing Customs' duties to keep clear of those that are in any way tainted with protectionist consequences. In a colony like this which is capable of producing so many shings, if we taxed nothing that was or could be locally produced we should have few articles left to tax. Thus the sugar duties are at present acting protections. of with the had one the facts attended to a witness opinist the sulfit, who was admitted as a witness opinist the sulfit, who was admitted as a witness opinist the sulfit, who was allowed had been assessed in mind, my other station. Their relatively of the property of the sulfit and a perition of them were lost. By the sulfit and a perition of them were lost. By the sulfit and a perition of them were lost. By the sulfit and a perition of them were lost. By the sulfit and a perition of them were lost. By the sulfit and a perition of them were lost. By the sulfit and the sulfit and a sulfit and the sulfit and the sulfit and a sulfit and the sulfit and a sulfit and the sulfit and a sulfit and the sulfit and th aged of the menths of the tunnels higher up to to be dead of the incurrence of the menths of the tunnels higher up to to be a second of the menths hill cutting them out but so make hill cutting them out but so make hill cutting them out but so make hill a good idea is conveyed of the out the time of the Zig-Zag which is considered to the cliffs and hills overlooking the valley. The rails are distinctly marked on the lower line of the Zig-Zag which runs off to Bowenfels, and the huge embankments, formed of milliens of tons of rock and earth, carrying the line from one viaduct to the other, and so on till the tunnels stand out in relief against the solid wall of rock on which are placed the rails of the support line. The photograph is a very creditable production.

CAPE OF GOOD HOPE.—Our Mauritius correspondent writes on November 13:—News has been received from the Cape of a dreadful hurricane at Algoa Bay, which occurred on the 18th and 19th September. Out of 14 wessels in the readstead 12 were driven ashore. The following is the list of the wrecked ships:—Sarah Black, Forres, Najor Von Saft, England, Arpail, Gustav, Jeane, Fingoe, Flash, Duke of Buccleugh, and hull of the brig Mag Merrilles. Also the Sea Snake, of which latter the captain and seven of the crew were drowned. The Natal Government has published the following list of rewards offered for the discovery of a gold field to viold 2000 are monthly for one year; £1500 ditto ditto 5000 to 2000 ditto; £2500 ditto ditto 5000 to 2000 dit It is left to tax. Thus the sugar duties are at pre-sent acting protectively. The same is true of force. it by the duties on tobacco, beer, and wine, and there are no additional duties we could impress
from which any considerable amount
of revenue could be raised that
would not have more or less of a from which of revenue could be would not have more or less of a protective tendency. At the same time it is protective tendency, and the free trade theory to an extraitions g and who a the lenly venient for the purposes of revenue must condemned if it should have any effect they have any effect in There are not many candidates who have ventured to commit themselves boldly to the policy of direct taxation. Many who are strong Ministerialists in all other matters have been chary in following in the waker of the COLONIAL Conference of the COLONIAL Conference on the colonial col meet they ional re-TREASURER in declaring that if more revenue they is wanted the taxgatherer must go to people their of property. There has been plenty of general declamation to the effect that the rich ought to their pay more and the poor ought to pay less; but we look in vain for any definite and practical exposition of how it is to be done. their onies vernlysed We There is plenty of room for the exercise of censtructive genius on the part of the Ministry in devising plans for putting into substantial

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GOLD REFINING BY CHLORINE GAS.

GOLD REFINING BY CHLORINE GAS.

Tun following paper was read by Mr. F. B. Miller, F.C.S., before the last a cetting of the Royal Society. Mr. Miller is the Amaper in the Sydney Branch of the Boyal Mint.

There is no recorded instance of gold having been found in an absolutely pure state. Every natural alloy of gold (or native gold as it is called by unincralegista) contains more or less silver, and in almost all buillon resulting from the melting of Australian allovial gold the portion that is not gold consists chiefly of silver, with only a very small proportion of foreign metals, unanily copper and iron, with occasionally a little lead or antimony, and sometimes a trace of visignification, for. This, however, though true generally, is not always the case with gold obtained from quarts visin by amalgamation, as the spectruy occasionally reduces and takes up other metals, as well as the gold, which appear in the builsion on mailting. The accompanying table will give some idea of the propertion of the precious metals contained in the gold from the various districts of New South Wales after malting. It will be seen that the most argentiferous is that from Bootone Sounce in the north, containing as much as 34 per cent. of silver, This approaches in composition the gold from the productive Thance district of New Zealand, while the gold from Nerrigundah in the south only contains i 5 per cent. of silver, the remaining 55h per cent being gold with a trace of copper.

An interesting and as yet unanswered question—arises, is this argentiferous character in any way one mode with the geological structure of the district?

The a fact, and certainly a very carious one, whether it arises from accidental causes, or whether it may hereafter be traced to peeulisarily in the rocks whence the gold a teriorate the farther north we go. In other words, it contains more aliver and less gold.

Thus the average finences of Victorian gold is about 23 carsts, that is to say, it contains about 96 per cent. of gold arise from a containing

gold have been received in May 1835 and December 31, 1868.

The average assay of this quantity would be about 942. In other words it contained 34½ per cent, of gold, 5 per cent, of silver, and ½ per cent, of such a severage loss of 2 per cent, in malting the gold dust, there would remain, after smolting, 6,683,735 ounces of gold bullion, and as the alternit contained of silver in the gold rocsived for colonge was 334,100 cunces, being at the rate of 24,750 cunces per annum. The average proportional quantity of silver contained in the gold arriving in Squary is all present very much greater gold now being sound, saying the large amount of silvery gold now being sound, separating to the large amount of silvery gold now being sound, separating the silver and its situation of the gold arriving in Squary is all present very much greater gold now being sound, sepacially in the grae amount of silvery gold now being sound, sepacially in the gold arriving 1853 and 1850 per and 1851 being 1850 per and 1851 being 1852 per and 1852 pe

than that given above, owing to the large amount of others gold new being found, especially in the neighbouring colony of Queensiand, and for the year 1959 was not less than \$2,000 cames, (\$5100), and was probabily fincheding that in the gold) shipped direct as bullion by the banks nearer \$2,000 cames.

Miest of the aliver thus naturally present in the gold has hitherto been lost to the colony owing to the expense in \$5 daesy of the earlie, &c., necessary for its extraction by any of the usual necthods of refining, which left little if any margin of profit on the operation. It therefore seemed distribute that some easy and becommical process seemed distribute that some easy and becommical process should be centrived for refining, in Australia, without the aid of costly plant and chemicals.

Twelve munths ago, a paper of mine, describing a new process for refining and beagening gold by means of chlorine gaz, was read before the Chemical Society, Lundon, a reprint of which from that society's journal now lies upon the table.

As since the publication of that paper the method of refining therein proposed has been successfully brought into practical operation on a large scale both here and in New Zealand, and there is a probability that its adoption will, before long, become more general, I lay before the members of this society a somewhat detailed account of the process and some of its more striking results.

Licition of the position of the process and some of its more striking results.

The render myself intelligible, some reportion of what is therein contained will be necessary.

Most people at all interested in the matter, are aware that the ordinary method of separating sliver from natural alloys of that metal and gold is a complicated and expensive process, and that the end is attained by melting the gold with at least 2½ times its own weight of allows, as a residue fine gold, assaying from 900 to 993; the rationale of the cyention being this. If the natural alloys were simply placed in the aid, thus leaving

effected, and at the interest involved in all these will be Such an end is attained in the plan now being adopted for effecting this operation.

It is well known that chlorine readily enters into combination with almost every known metal, the action in come cases being so violent as to be attended with vivid combustion. Many metals, such as lead, the, sinc, and antiment, when introduced into this gas, even at ordinary temperatures, combine with it, forming highly volatile chlerides. The two latter, if in a state of dice division, burst into fame on being placed in an atmosphere of chorine.

burst into flame on being placed in an amongsteen ethorine.

Copper also exhibits spontaneous combustion under similar circumstances, but the resulting chloride formed is enly slightly volatile.

Silver immersed in chlorine gas at erdinary temperatures slowly unites with it, forming chloride of aliver; but if the gas be passed over it while rad hot, the action is much more energetic, the compound formed being more volatile than the chloride of copper, but much less so than those of lead, the, sinc, or antimony.

The method of refining now to be described is besed upon these facts.

It consists simply in passing a current of chlorine gas through the gold while in a melical state, which is easily done by thrusting into the molton metal a small clay tube connected with a stoneware vessel in which chlorine is generated.

The chlorine, on coming in contact with the silver in the surface of the assetted gold, while this latter remains in a character of the assetted gold, while this latter remains in a

chieves, and the gold, while this latter remains in a particle candidon beneath.

Chloride of silver has always been considered a somewhat relatile substance, and under circumstances such as those here described it was naturally supposed that it would either be sublimed in the fise, or escape entirely up the chimney, but in practice it is found that the volatility of the chloride is not nearly so great as might have been anticipated, and that if its surface is coated with a layer of insed borns, it may be kept melted at a high temperature without any very material less.

The furnace required for the operation is the ordinary 12-inch square gold-malting furnace, the principal points to attend to in its construction being—lat, that the fine should be as near the top as possible, so as to allow of the crucible standing high up in it without being cooled by the draught; and, indly, that the furnace itself should not be too deep, so that when the pot is placed in the fire the bottom of it may not be more than three inches above the lare.

too deep, so that when the pot is placed in the fire the bottom of it may not be more than three inches above the hore.

The covering of the furnace should consist of two fire tiles, 74 inches wide and 16 inches long, one of which should have a long slot or hole in its centre for the clay chlorine pipes, which I shall describe presently, to pass through. An iron cover will not asswer, as it soon becomes much too hot for convenient working.

The druchles in which the refinage is performed should be french white flaving, and the refinage is performed should be french white flaving, and the refinage is performed should be french white flaving, and the refinage is performed should be french white flaving, artists, ordinary black has been present that he asswer, ordinary black has been present that the sampeunds formed. The present that into the performed should be the present of the clay pote, which wonders the waters than with a boding arturated solution of borats in waters than with a boding arturated solution of borats in waters than with a boding arturated solution of borats in waters than he waters that is allowed to stand in them for tan minutes, and is then poured off; the cradbles being afterwards and saids to derithe berax forms a glaze on the inner surface of the cradbles when they become but in the farmace.

When used for refining, these French clay credbles are opened within thack lead pois, as a precaution against loss, should the former crack, which, however, soldom happens, the crudists holes bored through them for the purpose of passing the scherine graterators should consider the desire and the melied gold. Of late, a pipe made in the desire will far the purpose of passing the scherine graterators should consider the long and a 1-inch bore, has been found to answer all requirements. The checking the found to answer all requirements. The checking the found to answer all requirements. The checking the found is an appearation of the dear, an inch in diameter, 21 inches long, have been found to answer

niabed with two neeks. One of there epenings should be stopped with a sound surk, or vulcanased indiarubber plags, if detainable, through which should pass tightly two glass tubes, the deutetion rube, and the settly or pressure labe, the length of the formar being a few inches, and the latter 5 or 10 feet, splited where necessary by means of vulcanized indiarubber tubing. The other opening, intended for introducing the exist of manganes, for, should be closed with a leaden plug covered with a short plece of indiarubber tubing overed with a short plece of indiarubber tubing overed with a short plece of indiarubber tube by way of a washer, and well secured.

Each generator should, form nearly to the bottom of which the pressure rube should extend; on this layer should be placed from seventy to a handrad pounds weight of binexide of manganese, in grains about 1-inch cube, sifted from powder. This quantity will be sufficient to effect many refining operations, and will obviate the necessity of repeated dismantiling of the apparatus.

Each generator should be suspended to about half its height in a galvanined from water bath. The chloring gas is preduced, where the present he was a superior of the present of the preduced, where the present he preduced, we have the safety-consent by develocity and the safety-consent by develocity and the safety-consent by develocity and the safety-consent by develocity in the safety-consent by develocity in the safety-consent by develocity and the safety-consent by means of vulcanized indiarrobber tubing, which if sevened from the direct radiation rubber tubing, which if sevened from the direct radiation rubber tubing, which if sevened from the direct radiation rubber tubing, which if sevened from the direct radiation rubber tubing which if sevened from the direct radiation rubber tubing which is sevened, and rendered perfectly gas tight, with a sement consisting of a thin solution of indiarrubber in characters are nerty containing and the refining soundaines in the special difficult

inget meales converge as a fine of the conveniently into the pot.

As soon as the gold is melted from two to three cumers of berax in a state of fusion are poured upon its surface. If the berax in a state of fusion are poured upon its surface. If the berax is added sooner it acts too much on the lower profess. The post, and if thrown in could is apt to chill the post, and if thrown in could is apt to chill the post, and if thrown in could is apt to chill the post, and if the post, and if the convey the children to the best may be carefully heat the lower portion.

Some ten minutes before introducing into one motion gold, or it is apt to epilt.) At the meanant of its entering the molid gold, the strye compression clamp is alightly loosened, so as to allow a small quantity of gas to pass through it, and these prevent any metal, rising and setting in the pipe, which is them gradually lowered to the bottom of the molion gold, where it is kept by means of a few small weights attached to the top. The compression ap is now quite relaxed, and the gas is heard bubbling up through the melted metal, which it does quietly and without projection of globules from the pot.

Rufficient hydrechloric acid must be added to the gene-

it is kept by means of a few small weights attached to the top. The compression tap is now quite relaxed, and the gas is heard bubling up through the melted metal, which it does quietly and without projection of globules from the pet.

Sufficient hydrechloric acid must be added to the generators from time to time to keep up a rapid evolution of chlorine. A rough general rule is to allow I imperial quart of said of 1:15 sp. gr. to every 10 cz. of affiver in the alloy operated un.

The column of liquid in the safety tube, acting, as it does, like a barometer, affords a ready means of knowing the pressure in the generator, and of jurging of the rute of production of the gas, as well as at ones showing by its fall if anything irregular has occurred, such as a lask or a crack of the chlorine pipe or pot. From sixteen to depthem inches in the safety tube correspond to, and balance, one inch of gold in the refining cracible. When the thlerine is first introduced into the melied gold a quantity of funes are not chloride of aliver, but the volatible chlorides of some of the baser metals, and they are especially dense when much lead is present in the alloy under treatment, forming a white deposit on any cold substance presents to them. After a time, longer or shorter, according notion gold, their should those funes coase, so long the production of the deposit of an any cold substance is easy throw to ach be surface of the melied gold, yet the chlorine is absorbed, little if any or assarly the voles, of the chlorine is absorbed, little if any or assarly my to escape and to be thus wasted; and it is found that these deposits and the contract of the melied gold, yet the whole mass it toughened by its action. It seems essential in using chlorine the quicker is the operation.

It is a curious circumstance that, though in toughening with corresive sublimate, this substance is only thrown os the sariface of the melied gold, yet the whole mass is toughened by its action. It seems essential in using chlorine that the gas should p

The gold is now fire, and surpey requires continuous. As before stated, it is found that all these operations can readily be performed, and about 2000 onness rained per day in three common melting furnaces, between 0 am, and 2 pm. 98 per cent, of the gold originally contained in the alloy operated on are then ready for delivery.

The other 2 per cent, remain with the chloride of after, partially in the metallic state, and partly in a state of content of the content o

day in libre and the goal or delivery.

alloy operated on are then ready for delivery.

The other 2 per cent, remain with the chloride of silver, The other 2 per cent, remain with the chloride of salver.

To free the chloride of allow from this combined gold (that mechanically mixed being alliminated at the same time), it is noticed in a beraxed white pot, with the addition of from 8 to 10 per cent of metallic silver, rolled to about one-cighth of an inch thickness. The chloride of gold is by this means reduced at the expense of the metallic silver, chloride of silver being depend while the liberated gold is shy that means reduced at the expense of the metallic silver, chloride of silver being depend while the liberated gold sake and melts into a button at the bottom of the pot. As soon as the whole is thoroughly mailed, the pot is reasoved from the furnate and allowed to stand about ten minutes, and the still liquid chloride of silver is then poursed into large iron moulds, so as to form alabs of a convenient thickness for the next operation, that is its reduction to the metallic sate.

After the fusion of the chlorides, a small quantity of a curious sperge, form substance adheres to the sides of the crucible used, probably consisting of subchloride of silver; but, since it always contains a little gold, care has to take in pouring off the finid chlorides, to prevent this auriforous sponge from falling out and mining with them.

The fusion of the chlorides with metallic cliver does not remove every trace of gold, but with proper care the amount remove every trace of gold, out with proper care the amount remove every trace of gold, out with proper care the document in 10.000, or about two grains of gold in every the troy of silver, a quantity one small to pay for further extraction in this occlony.

The alabs of chloride of effect are reduced without difficulty by plains of swenghts does not revery the course of the poper. The administration in this colony.

The alabs of chloride of effect generally and to two

plaris are troubleaume, from the corrective action they exact on the crucibles; and the last, namely, the employment of corrective sublimate, which is that usually adopted, is most objectionable from the dense and highly injurious furne evelved.

on the cruchles me, from the corrosive action they mart in the cruchles; and the last, namely, the employment of corresive sublimate, which is that usually dodyed, it most to bjectionatic from the dense and highly injurious famous revelved.

In Victoria, this is regarded as so serious a matter in a public and annitary point of view as to have induced the Municipal Council of Melbourne to institute an action at hw against the Union Basty and the mount of the control of the matter and have against the Union Basty and the mount of the control of the complete tought melting establishment, in the claimination as volatile chlorides of the materials which render it brittle, while the credition of the delectrious mercurial funces is avoided.

In the metallurgic treatment of the procloss metals sense less is always sustained, but that incarred in the sense less is always sustained, but that incarred in the process here described is not found to be crossaive.

The average loss of gold in operating interest has been fround it amount to 10 purts in every 100,000 of alloy furnated, which is considerably less than sweald be men with in toughesting on equal amount of gold with carrosive, subhimuse in the ordinary manner.

The loss of ellever has amounted to 240 parts in every 100,000 of alloy operated on (containing originally say 10 per cent. of ellever).

There is no death that a considerable portion of both these losses would be recovered on further treating the pots and salara remaining after the operation, and it is post and salara remaining after the operation, and it is post and salara remaining after the operation, and it is post and salara remaining after the operation, and it is post and salara remaining after the operation, and it is post and ashers remaining after the operation, and it is post and ashers remaining after the operation, and it is post and the large scale original post and the alloy operation of slydney, including the final post and the alloy of the previously known practical processes, one of which

Bilter	MADE I	11.com	4:-		
Copper	*****				972 3
Gold .		****			25 0
Zine and	Store .	****		*****	27
Zine and	-				Traces
					-
y entended	manufa.	- COV			1000-0

A very extended series of experiments have been made at the Sydney Branch of the Reyal Mint to test the value of this process, and the result as been as mentioned by the Hen. The Colonial Transcrured to the speech on the Badges, October 14, 1809) that "active six speech on the Badges, October 14, 1809) that "active six speech on the Badges, October 14, 1809) that "active six speech to the Badges, October 14, 1809) that "active six speech on the Badges, October 14, 1809) that "active six speech on the General States of the Colonial Transcructured the Colonial States of the Sydney University, who, in the kindest manner, placed his laboratory at my disposal to kindest manner, placed his laboratory at my disposal to kindest manner, placed his laboratory at my disposal to maint me in this matter, and also in Dr. Thomson and Mr. Edward Rill for their valuable and friendly help.

Zahill showing the proportion of Gold and Silver, in characteristic samples of Gold-dust, from various localities in New South Wales (after melting).

in New South Wal	es (after melting).	A STATE OF THE PARTY NAMED IN
ALCOHOLD FOR THE PARTY NAMED IN	Gold	Silver
Locality.	in 1000 parts.	in 1600 parts.
Bocne Boomso .	654 to 695	
E Pairfield	872	121
Timburra	708 to 808	280 to 97
Feel River		
Z Rocky River	934 to 962	
Kacky Eiver	923 to 937	66 to 63
		164 to 93
Sofala	929 to 933	
Ophir	943	54
B Tambaroora	918 to 954	54 to 43
Turon	918 to 928	78 to 65
Windeyer	0.10	55 to 37
Burrangeng	040 At 053	San er
H Adelong secretar		67 60 64
Emu Creek	971	27
Belegate	**** 971 **	27
Nerigundah	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	15

In connection with the above subject, the subjected paper on a new appearatus for reducing chloride of silver, by A. Leibius, Ph. D., also on assayer to the Sydney Branch of the Royal Mint, was read at the sapar

meeting!—
In the refinage of gold bullion by Miller's new chloring process, the silver contained in the alloy thus treated is eliminated from the latter in the state of argentic chloride, which, by a subsequent process, is reduced to metallic allver.

which, by a subsequent process, is reduced to metalite aliver.

This reduction has always been effected in the usual manner, via, by placing the slabs of fused argentic othersite between places of wrought iron or sine, with the addition of aciduated water. Although a perfect reduction to metallic silver has always been achieved, yet it required a considerable amount of time and manipulation, since the think slabs of fused argentic chloride were, after two to three days, only partially converted late metallic allver, and had to be rearranged in order to expedite their capital and the partially converted the metallic allver, and had to be rearranged in order to expedit their capital that there are no account of the very converted by required but more so on account of the very distance below the property allver was backen up to opinior. The reduced penalty allver was backen up to opinior. The revoked penalty allver was backen up to opinior. The reduction of the neighborhood water to free it from a function of the fused masses of argentic chloride in a menter which would, at the same time, be quicker in its revocation, and also obviate the just alladed to nanupal-tices.

In 1868, Mesers. De la Rue, and Rugo Bineller, in

R remained, therefore, a desirence of the collection of desired the fused masses of argentic chloride in a mean of the fused masses of argentic chloride in the mean of which would, at the same time, be quicker in its recentific, and also obviate the just alluded to munipulations.

In 1868, Messra. De la Rue, and Hugo Minsiller, in London, constructed a galvanic battery, one pole of which consisted of fused agentic chloride, the thickness of a goose quill; the other pole of cylinders of ainc. Adopting this principle, I have endeavoured to construct an apparatus which should fulfill the requirement before referred to.

After operating successfully with a small modal, which I have brought here ton-light, and which allows the reduction of about 250 onness of argentic chloride in one operation, I have, with alight modifications, constructed an apparatus which will reduce from 1400 to 1500 ounces of argentic chloride in temporatus and in dimensions are as follows:

— Two thick boards, 16 inches long, are joined (agether on both ends by three strong battens, so as to form an open box without a bottom 13 inches long by 14 inches wife, and 15 inches high (inside measurement). The two boards forming the length of the box or frame contain seven vertical greeves, half as inch wide and half as inch deep, at intervals of 14 inch from each other. These grooves are cut down to a length of the box or frame contain seven vertical greeves, half as inch wide and half as inch deep, at intervals of 14 inch from each other. These grooves are cut down to a length of 12 inches long, and 12 inches high, which rest on both sides on the strips of silver which, as just described, are jammed herizontally into the sides of the strips of silver which, as just described, are jammed herizontally into the sides of the strips of silver which, as just described, are jammed herizontally into the sides of the inch plates 12 sinch hick, 14 inches long, and 12 inches high, which rest on both sides on the strips of silver which, as just described, are

signate chloride, which are 12 inches long, 10° bigh, and about I inch thick, and are put through the best and about I then in the best and about I then in the best and a size of the sales of assumption and silver basis believe the sales where a sales of assumption in the sales of assumption in the sales of assumption and the wave in the six spaces formed by the waves one photo and the work in the inter they are about 1 inch seven one photo a sales of the lower frame care than contented with the adder of the lower frame care than contented with the adder of the silver forming the lower prime connected with the acts of the silver forming the lower with the acts of the silver forming the lower prime are provided to a fact of the silver forming the lower than a side of the silver forming the lower and the with water. After a chirt time galvanie action is discernatible, the liquid gets gradually warmer, and a sirong galvanie current is observed. After about twenty-four hours the action is observed. After about twenty-four hours the action has alver loope the same along an action is discernatible, the liquid to be completely refused to metallic colored in twenty four the same appeared to be completely refused to metallic colored as arguming the same appeared to the salver loope the same along the same appeared to the salver loope the same along the same appeared to the salver the salver and the same appeared to the salver the salver during the special on the salver the salver during the special of the salver the salver during the special on the salver the salver during the special on the salver the salver during the special on the salver long the salver the salver during the special on the salver the salver during the special on the salver during the specia

penings should be ladiarubber plags on the errorshice; and the last, namely, the sound because the ladiarubber labe.

BONDS, SECURITIES, ETC., UNLAWFULLY ACQUIRED AND INVESTMENTS EXCEEDING THE LIMITS PRESCRIBED BY SECTION 5: AS AMENDED

Description	Par value	Book value	Name directors who, as shown by the ba approved the purchase of these bonds, a quired.

JONE-13-1876. CHLORINE PROCESS Well- MIE AO Chime directors who, as shown by the purchase of these bonds, quired. FULLY ACQUIRED AND INVESTMENTS EXCEEDING THE LIMITS PRESCRIBED BY Y DNEY - AUSTRALIA

BONDS, SECURITIES, ETC., UNLAWFULLY ACQUIRED AND INVESTMENTS EXCEEDING THE LIMITS PRESCRIBED BY SECTION 5

AS AMENDED

Description	Par value	Book value	Name directors who, as shown by the ba approved the purchase of these bonds, a quired.
	61914		
	1020		

Hendricks Brothers, 49 CLIFF STREET Tom James Pollock Director W Milleut Thisa Dear dir: Me au en recipt of your winder date of the 10" wish with Edelosure which we return signed as requested . (Cuclosed we haved you muity med /21) dolls currency, and beg to trouble you A forward to our address four 4 ladditional Alber medals in cases. some as three receited yesterday and oblige Houndich Butter

Henry h, Brother 49 Cliff the new York

Returns excited for hill of copper S. A. B. Mill of also aday 4 %.



United States Assay Office JUN 9 1870
RECEIVED New York Some 8, 1870. Sir: In your letter of Fam. 31, 1870, addressed to the Superintendent ad int. you refer to the culting down of the appropriations for the support of the Assay Office, by the Committee on appropriations of the House of Representatives, & ask for information as to the effect it would have upon the operations of freiency of the Office, ve. should the diminwhed appropriations be finally adopted. In reply, a detailed statement of the case was furnished you, together with an explanalion of the steps already taken to secure a neclefication of the error into which the House bommittee, through lack of necessary information, had Soon after assuming the duties of Superim-tendent. I dumed it advisable to make further efforts to obtain the necessary amendments to the House Vill, & accordingly requested Mr. Edd. man, the Deputy Treasurer, to visit Washington,

of by personal representations endeavor to show the absolute necessity of a change in the appropriations. This he did, mailing upon the Secretary of the Oreasury, the Chairman of the Sinale Committee on appropriations, + others, from whom he received assurances that the matter would receive due altention. On examining the appropriation bill, as bassed by the Senate, honever, I find that the appropriations for this Office stand preciseby as in the House bill, viz: For Salaries of Officero & Cherks . \$25,700. This, as you will see by reference to the let. ler of Oleb. 1st above mentioned, leaves us in an extremely embarraseing situation. The appropriation for Salaries is \$2,300 less than the amount asked for in the estimate of m. Dom. rung, which amount is necessary to cover increased compensation allowed by the Secretary of the Orcasury, as explained in the letter of

Mr. Duning to the Director, under date of October 26, 1868, criz: By authority of the Secretary of the Freas. the bar clirk mas moreased from \$1600 to \$1800_imerease \$200. Under date of Jan. 10, 1868, the pay clerk was transformed from the U.S. Asst. Treasurer's office to the assay Office, at a salary of And under date of Oct. 3,1868, the salary of the bullion click was increased from \$1800 to \$2000 - merease Total merease \$2,300. In addition to this, the salary of the Deputy dreasurer was moreased, under date of Nov. 6, 1869, from \$3,000 lo \$4,500 _ moreace Making the total amount required above the appropriation allowed by bongues \$3,800. Thus, without allowing for the increased compensation asked for the Officers + blenks in the estimates of Jan. 7th, the Rum of \$29,500

a close calculation, to meet all probable expenses for the ensuing year. But, very much to my surprise, I leave from a letter of the First Comptroller, dated May 7, 1870, to the Treasurer of the Assay of fice, that an elem of \$11.789.35, being "available profils account in the and quarter of 1868, & claimed by this Office under the law the support of the Office, has been disallowed by the Department. Ohe Comptroller Days: The amount of available profits nhich accounted during the 2nd quarter of 1868, onhich more deposited with the dreasury subsequent thereto, more not placed to the credit of the Incidental found, as the act of Congress ap. froved only 20, 1868, required that they should he covered directly mits the Treasury. The act in question did not provide that the 'available profits accorning only subsequent to its pascage should be so disposed of, but that here. after all the available profits shall be covered mlo the dreasury, to be expended

only by a apricipic appropriation." Under date of May 28th, he further says, in reference lo this ilim: Enaamuch as it has been deposited into the Ireasing, not to the credit of any appropriation, it would be necessary that an act of bonguess should be obtained before it can be used for any With all respect for the opinion of the bomp. to regard, this as a mistaken vive of the case. The "available profits" accorned before the passage of the act of July 20th were in fact already appropriated, under the act of Mich. 4, 1853, for the support of the assay Office, or when transferred to the Treasury, should have heen placed to the credit of the Office on the books of the Department. That they more not deposited before only 20 th, mas due to the fact that the accounts of the Office could not be brought up before that date; but I am mable to see why that should invalidate the claim of the array Office to them, since, under the act of meh. 4, 1853, they formed part of the appropriation for the fis-

cal year ending Onne 30, 1870. If I am right in this view, it is clear that an error has been made in the entry of the amount in question upon the books of the Oreasury. The semedy in such a case would seem to be a simple correction of the error - for which an act of bongness, as suggested by the bomptroller, would hardly appear to be necessary. I would respectfully ask your particular attention to the withdrawal of this sum from our ap., as affecting the operations of the array Office during the coming year. Jaken in connection with the large deficiencies in the appropriations - should they not be rectified - I fear me chall find ourselves senously crippled, should the decision of the Comptroller be sustained. The appointment of a Committee of Conference on the appropriation will affords apportunity to secure the necessary changes in the appropriations for this Office. May I ask you to formand this communication at once to the Secretary of the Oreasury, with your official endorsement, & such comments of suggestions as you may,

deem proper to add thereto? Unless some action is taken to relieve our embarrassment, do not see how, in view of the act of Och. 12, 1868, prohibiting the transfer of appropriations between different- branches of the same department, the business of the Office ear he properly transacted during the coming year. To recapitulate: The amounts actually required for the support of the Office are as follows: For Salaries of Officero & blerko \$29,500. " Trages of Workmen 68,000.

Incidental & bontingent Expenses 44,000.

F141.500. Tery Respectfully, Lon Cames Pollock, Thos Conferentendent.
Diricher of the Mint, Supermtendent. Thiladelphia. Jenn ?

(n. y Assay office) Superintendent of Urray Office, A. 4. Director of the mint. Subject: appropriations for the Fiscal Gear 1870 -1,4 · Error in Crediting "Available Profits." J.S. MIN

JUN 9 1870
PECENEO

HNDTWENTYAIT. NY . JUNE THIRD. JAMES POLLOCK. DIRECTOR U.S.MINT. PHA. LETTER OF TWENTY SEVENTH NOT RECEIVED.

NO MINESOTA IN MARKET QUINCY TWENTY CENTS OTHER COOD LAKE COPPER AT NINETEEN FIVE EICHTS CENTS FREE ON BOARD HENDRICKS BROTHERS.

JUN 4 1870 1. Bex 10. Office of Hendricks Brothers, New York June 3 1870 ances Tollock Con Duictor. U. A. Minh Philadelphia Deputi: : We are si receift of your fam of the 2 " wish and contents Noted. I as fyrus of the 27" title was not legited. In thelegraphed you as follows. Letter of the 27" not peceived no muesota his Market. Lewiscy 20 " other good Lake Copper 19%. cents free on hand. I fine which the Juja therty is a small tot of Minesta on the way hegy from the mined in travesit to, Currel. The agent of the Currhace fin has officer us refludal fat about 23 of gold of / Equal in converge to 26/4 subject to reply by belegrace thmonow morning. Ill will afford us pleasure to sife you and refinanci ! Goffly from Alchidick Bothers "Debroit Smelted" better than Ding (

Amiricks Bros. 49 Cliff stat New York

Reports prices of Copper.



JUN 4 1870 Minited Hates Treasury.

Proceived Monted Hates Treasury.

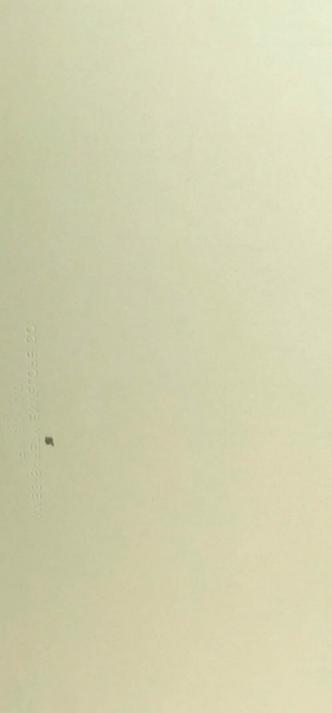
Proceived House 2 1870 Su: Please accept my thanks for your letter of 31st ult I information concerning The counterfect quarter-eagle. your long 1. Naven for accid Ineus US. Jumes Vollvele Eng Director of U.S. Weent Thela Telpha

asst hear us. Boston . mars -Returns thanks for report a spurious qualit engle. U.S. MINT JUN 4 1870 RECEIVED

Herewith please find Invoice forwarded by as at the and amounting, at your debit, to \$ 2225 for Respectfully yours, Hendricks Brothers.



Office of the Assistant Treasurer of the U.S. Nº 4064 Philadelphia, Jene 20 1870 I Gertify, That Geo, Eyster. ha Sthis day deposited to the credit of the Treasurer of the U. S. Fifty thousand 100 Dollars, on account of Profits derived from coinage for which I have signed triplicate receipts. Elebergaee V.S. Assistant Treasurer U.S. \$50,000



U.S. MINT GENERAL CORRESPONDENCE 1870/MARCH - APRIL



United States Assay Office J.S. MINT APR 2 1870 New York Opril 14 1870. the Secretary of the Oreasury, for Thisp-seven thousand dollars, viz: Offer Salaries of Officers & Clinks \$10,000. " Hages of Workmen Ortal 12,000. 15,000. \$ 37.000. Will you have the gordness to give itimmediate despatch, with your official ap-Very Respectfully, Thos C. Solon Superintendent: How Dames Pollock, Director of the Mint, 2 Philadelphia, 2

United States Assay Office New York April 12/870 (Copy) I respectfully request that you will issue your warrant in favor of Char I Folger, Treasurer U.S. assay Office, New York, for Fhirty-Seven thousand dollars, on account of appropriations for the Support of this Office, biz: For Salaries of Officers & Clerks \$ 10.000.00 Less Transfer Draft No 2938, on Harrant So. 181, issued without requisition from this Office, & errone= = ously draws from appns for Salaries of O. 2 to. instead of Ine & bon = Exp= 845,53 \$9.154.47 12,000.00 by the Deft at Washington " Hage of Workmen 15.000 Incidental & Contingent Expenses Increased by Fransfu Draft No. 2938 845.53 15.845.53 issued and drawn erroneously as above Fotal \$ 37.000.00 Iremain, very respectfully Hon Geo Stoutwell & Seey of the Freakury Jour Obelt Servit (Signed) Thosh Acton Superintendent

Assay Office New York

Copy of Requisition, drawn

April 1: 1870. for use of

Assay Office for

\$37.000

N. Ef. Assay Office Enclosing requisition for \$37,000. for ordinary Expenses, 1869-70 .-

APR 2 1870

RECEIVED

The Pelaware, Lackawanna & Mestern Railroad Co.

APR 5 1870

PECEIVED

MORRIS & ESSEX DIVISION.

Hoboken, N. J. AGENT'S OFFICE,

Hoboken, N. J. Office,

1870.

To the Superintendent of Philaselphia mint.
Philaselphia

Sold pieces. for certain use (not to be mutilated in any way whatever.)

please state the amount in currency & shall send for them

toblige Your Respy.

Dat Edward

address as above.

Jas. E. Hansas Stobokenny Mants 25 ct. APR 5 1870

J.S. MINT Ereasury Department, APR 5 1870 RECEIVED! Frice or Supervising Architect, April 4", 1870. Sir yours of the 1st inst. submitting a bill in duplicate for 100 ounces granulated Silver furnished the Photographer of this Department, amounting to \$139 400 silver coin, has been received, and the bill this day refired to the First Auditor for examination settlement and remittance to you of the amount found due therein, a draft for which will probably he forwarded in a Very Respectfully few days! Jas Lollock, Esq. Director of the Mint. Philadelphia Supervising Architect.

A.13. Mullett Sup. Aubst

Bill for 100 the panulated Silve for Pholograph Bear Deft \$13993 has been referred Bills 1st And. Ja settlemust & Demittance



N.Y. Assay Office

billy for pright, cent.

age, a corpusage and

San Francourers for

Ship Jonani



APR 7 1870

RECEIVED Trensury Department. the Assistant Museurer in Philadelphia it appears that about thirty seven thousand dollars of five and three cent coffer nickel coins have accumulated in that office. The Assistant Treasurer has been directed to transfer these coins to the Mint for the furfice of being brightened, after which you will please request the Freueurer of the Mint to transfer all orders and remittances for these coins to the Assistant Trousurer to be filled, contil the amount on hand is exhausted. Very Respectfully I De Hours How Januar Polloch Director of the Mint



United States Assay Office New York April 7, 1870.

I send herewith a list of the Clarks, Assistants, Forkmen of other Subordinales employed in this Office, with a statement of the class to which they respectively belong, of the department in which they are employed, as requested in your letter of the 2nd inst. Very Respectfully,

Con. Sames Pollock, Tho C. Steton Dricher of the Mint, Superintendent. Philadelphia.

N. Y. Assay Office

Enclosing list g asso; tants, clubbs, & Employer, for Sic's Ducis



Stery Treasury

Endosing Silven bullion memorahum No. 56. 9
Wheh 2nd 1870 - for Explanation of enalt of Changes.

They Booth's cefly filed herewith 7



Reco hy orh ally Office me the finited States.

Philadelphia, Afril 8. 1870

No. of Papers,

Subject, hansmit, list

of Making from in

No. of Papers,

J. S. MINT APR 8 1870

RECEIVED:

Sust of Clerks, Assistants, Workmand, and other Subordinalist employed in the U.S. Olssay Office Thullook. Class. Department. Clame. Carl Schully Asst. Assayer Resay Laboratory Ol M. Orland Accountant Oneassiver's Deft Sam H. Graham High Clark A. Maclay Bullion " O.E. Roberter Jaying " 6. A. Todd Car O. O. Conant Superintendents' a Assistant Trasurero " Go. O. Edelman Assay Laboratory. H. G. Joney O. O. Wilder J. M. Sylvister 7pm S. Ward Superintentents Deft. Messinger OF O O vellner Patrick Bagen Cas. Cleveland Dan! Smith 21. B. Stoddard Occhies

Superintentents Dept. Or O O oellner Messinger Jahrelo Bagen Jas. Cleveland Dan! Smith 2. B. Stoddard Haller Gubner John V. Hart-Harris Mines 11.10. Dickles Special Detective Camille L. Dego Fortman desay Laboratory Ceran Hibbs Satrick Coon Henry Risbery John Ryan Errand Bry Foreman Meller , Refinis Dept. Levi Springstein fr. John Benner C. G. Brunner Henry Doherly Dan. Sheridan A. V. Springer Engineer Felir M. Stule John C. Colgan Horkman 76.76. Cooper Jatuck Otlanagan Jatuck Othino Oscar Gardner 6. 1. Harned Jahrelo Keely Vas. Pettigrew John Chace Herman Jeilsch Jacob Roderman Geo. Riley. Geo. Wilhelm pendent Treasury, a paid by the Assay Office until the close of the present fiscal year, as Clerk 09 G. Allen A. Goodwin M. O. Colegale 6. 26 Cevans L. Muker O. D. Steams A. Riefenburgh

1. Y Assay Office Schedule a working force Employed, Rec 4/170

APR 10 1870 United States Assay Office How York April 9, 1870. dir. I send enclosed an amended regnisi-lion upon the Secretary of the Treasury for Thirty-four thousand dollars, viz: OFor Salaries of Officero & Clerks \$9,500. " Hages of Workmen 9,500.
" Incidental & Contingent Expenses 15,000. Volat. \$34,000. -Volat. \$34,000. The change in amount was made necessary by advice from the First Comptroller that the funds to the credit of the Assay Office, on the appropriations for Salaries of mages, mere not pufficient to much the amount drawn for, after deducting the lapes accorded from April 1th 1867, to December 31st 1869. Of this I had not before been Will you have the Kindness to formand the requisition, with your official approval, as soon as possible? How James Pollock, While The 6. Action Sinter Superintendent. N. Y. Assay Office

Enclosing amented . Requisition for \$34,000.



MINT OF THE UNITED STATES,

MELTING & REFINING DEPARTMENT,

Philadelphia, 9. april 1870

Hon James Pollock Director Ne. D. mint

Dear Dir,

There examined the letter of the Treas & Dept in relation to num. Nº 56, Dilver Bars, lorborado, therewith state recollections, facts topinions, in relation to said deposit.

a number of such deposits have been offered at the mint this spring, & have been at first required, as being too base to warrant our refining, except at the fullest rate of charges, & even then protested against returning the traces of gold, that might be contained in them, on The ground that the goot would love money, oven at The highest rate of change, allowed, because the cost of refining could not be met by such charges. The parties depositing however urged ourtaking their deposits at a all haxards, & at any charges. In order

finding a little gold in it, which would help to cover the cost of refining, we concluded not to charge more than 3 ets. pr. ox. groß., which is the price changed in the Mem. of 8-56. Now in a deposit of 500 @1000 ox. The least amount of gold that would be reported would be 12 thousandth. In Nº 56. The gold did not equal this. But assuming it tobe 12 thousand the, its value would have been \$bout \$ 16.00, or nearly what we should have charged extra for the refining; when bullion is of the character of 8-56.

The depositors of No 56 have therefore not the olightest ground of complaint, but have paid a shade less than they would otherwise have done, if we had refined both for gold & Liber, & then charged them the full amount we were entitled to do by the published scale or rate of charges

Respectfully yours Late Booth mxR

to accommodate them, I have heretofore waived my objecttions, on the condition that at least the foot should not lose. nevertheless, I am so persuaded that we have returned tothe depositor in several cases more than we ought, that after consultation with the lepayer, I have urged that we should reject such excepively base deposits, until we can have a bupel furnace creeted, which may probably enable us totake very base Bullion, trefine it, without lofs to the government, of without two great cost to the Depositor. you have already sanctioned the exection of the Cupel furnace. . now the special Deposit in question, was regularly rece, weighed & apayed, the amount of silver contained reported, I such a trace of gold only, to fall without the limits of a Report on it, as tomake it not worth reporting on. In order to refine it, I had to postpone the Regular operations of the

The regular charges for that Deposit should have been not less than 6 cts. pr. ox., I wen that would not have covered the cost, with so base a deposit. Nevertheless,

mint (in Refining) por a whole day.

J-Booth leth. Reply to Completed
Manyle Jesig Bready
of Expension charge for
Repining Silver dapart
mon up. 56.

APR 14 1870 United States Treasury.

APR 14 1870 Proston april 11 1870

Boston april 11 1870 Div. Secuclose herewith a five dollar gold coin issue of 1858. requesting an opinion regarding its gennineness and peculiar appearance. It was cut open in this office. Gest. Meastly Tothe Director of the Illuit Philadelphia Lat A Hance Fr. 117 4 815. light 114.

Assistant Treasurer, A. S.

Boston, afc 11 1870

No. of Papers,

subject, Encloser And present half Engle of 1858 for Exam-



Edward Heeman Both Man

Mants to Penow the Was small partet of gold in the Mant factor of and the Smaller factor the assay scaly can averigh.

APR 12 1870

RECEIVED:

J.S. MINF Treatment Plementment? APR 12 1870 RECEIVED! Buran Engraving Hinting afinb 11 " 18 76 Honorable James Pollock; Director 26 S. Wint.

This had alphia. per Expiels a quantity of gold the value of which I beg for will remit to me in pure trop Silver Nevy respectfieldes The fof Bureau Engraving Virinting. Weighed 12. april 1870 by H. Cochran + found = 2.23 or

ADAMS EXPRESS COMPANY,

GREAT EASTERN, WESTERN AND SOUTHERN EXPRESS FORWARDERS.

[DOMESTIC BILL OF LADING.]	Philadelphia, April 14 1868.
RECEIVED of	Defector of M. S. Brins
Line Parce	CV Value For
Marked Land B	which this Company charges
Marked July	Warrington De
Which it is mutually agreed is to be forwarded to our Agency nearest or most convenient to destination only, and there delivered to other parties to complete the transportation. It is part of the consideration of this contract, and it is agreed that the said Express Company are Forwarders Only, and are not to be held liable or responsible for any Ocean, or River Navigation, Steam, Fire in Stores, Depots, or in Vransit, Leakage, Breakage, or from any cause whatever, unless in every case the same be proved to have occurred from the fraud or gross negligence of said Express Company or their servants; nor, in any event, shall the holder hereof demand beyond the sum of Firty Dollars, at which the limit of the liability of the Adams Express Company or their servants; nor, in any event, shall the holder hereof demand beyond the sum of Firty Dollars, at which the limit of the liability of the Adams Express Company are hereby authorized to do,) such Company or person so selected shall be regarded exclusively as the agent of the shipper or owner, and as such alone liable, and the Adams Express Company shall not be, in any event, responsible for the negligence of non-performance of any such Company or person, and the shipper and owner hereby severally agree that all the stipulations and conditions in this receipt contained, shall extend to and inure to the benefit of each and every Company or person to whom the Adams Express Company may entrust or deliver the above described property for transportation, and shall define and limit the liability therefor of such other Company or person. In no event date, in a statement to which this receipt shall be annexed. All articles of Glass, or contained in Glass, or any of a fragile nature, will be taken at shipper's risk only, and the transportation. It is further agreed, that said Company shall not, in any event, be liable for any loss, damage, or detention caused by the acts of Gcd, Civil or Military Authority, or by Rebellion, Piracy, Insurrection or Riot, or the dangers inciden	
Freight,	For the Company,

William) J. S. MINT APR 16 1870 Treasury Department, RECEIVED Rugmy min Paping Office 15 4 18X Honorable James Fallock Director 26. S. Mint, Philadelphia) Anousto acknowledge the receipt of your letter of the 14" inst, advising me of the transmission, for Express, of 32.05 owners from Silver, the value of gold button forwarded to you on the 11 mint. On reply I beg you to accept my thanks for your

Contest in the matter, and it eny that it will afford me pleasure A reciprocate at any time, if in. my prover. Very respectfully Best Michaeles.

Gro. B. M. Chartee Chief of the Curan Engraving-Hunting THEM CALLED BRAILE MINES Dated april 15, 1870 Received_ ade'g with thanks
32.05 07s pure Silve and Return for Gold butter .



. M. 1105 V.1.71 Counder nd Oct. 14 /190 Das Whaitin. Refer to the probability of an niether Read for feling Defat. 19 2 7)

Drownsville Fayette Co To the Superintendent The Gr. S. mint Phitadelphia Pa At is with pleasure that I Enguire of you about certin Coin Cother you bather year 1491 or 1492 if you have got any and what they are worth, Each, and also Wis, leents of 1793-1799. 4 1804 and what they are worth Each - and the mickel Cents of 1856 and the worth of it - or wether they was any Coined or Isued in 1856- and if Their was I leave let me know as I swould like to get those dates to fill a private collection of my own not to sell to any person and if you have got Eather of the above dates Alease let me know the price for them and I will rend to you for them the money accomping, that is if the price is not to steep for me - and if you have

not got them Clease let me Kinow where I might get hold of them, find Enclosed D. O, Stamp for return answer Copeing to hear Soon from you of the Sermain, and I Rospectfully J. Hise Brownsville, Browns ville Fagethe Co In Somewhat the service of the season of the G. O. Boy 3-6

mankato, Meiner nov 13 etc Gents Please inform me the quality of United States gold Coin That is the number of Canells fine I have had fried about the quality of gold coin for that reason I take the liberty to write Prespectfully P.K. Wiser

The quality of U.S. sold coin before 1834, was by law 22 carats, or 916 3 thous. It is now goo thousand this, which is 21 19 carats, as near as may be. the do not go by carats any longer.

250

P. K. Wiser, Mankato, Minn.

a, 19 the quality, in Carats, of U.S.



JAN 13 1870
RECEIVED:

United States Assay Office New York Jan. 12. 1878.

Dear Pir. on the 13th of august 1868, I addressed a letter to the Superilevent of the assay office. Calling his attention to an act of bougues, (passed about that time) requering all Sheperfor of the min & Branches Wh covered puto thell . Theasury, + directing That no disposition of the "deductions" be mude until the deargin of the 1st Compliation as to the deope of the act could be ottamed. on the y's of horse he following, of informed the superintendent, of the deasein of the September Compliantes + directed a compliance therewith in Examining Some Statements purposed at my request, I find that thelaw as construed by the complittee has not been coupled With at this office. - this your he third swough to furnish me with a coul copy of the deasin of the complished in this suly A. It will Itook eshense pains to have thelan strictly Emphail with both there and ar Lan hurasto, les there of the deductions) his there, appears to have been adishorting to sewa der this office as independent of the Min,

he found on the fter of your office under date of about Buy Astreuber 6"1868-Hit It would be und also, if I could have a copy of my letter to the 1st. Compliante promoting the carefidated hutally about sujust 13, It may hanbeen addressed to the secretary trephice to by him) Isuggest that you postfore any selltiment of the bal: Such ofe whie the same afe relating to the office is looked into-After that Fruit Sulfon - Meanwhet please funish the copies and for al Mom carbest Emmence, Than not yet Don Jude My Hamed the for say whether the Lowlay had atten any action who ferme to loaning com on for the advice you early with suy, it, -Inhast They Hen Jan Pollocki H Robert winer bruch ll smul U.S. Assay Office New York

H.R. Sinderman asks for copy of letters written by him to the See of Frasury and Comp = =troller



the Assay Office my Jan, 1870, J.S. MINA JAN 8 1870 bem Fir. this you please forward immediably to How behand Tolgan, The asure of the assay office, say throw Expres pawalles Mul instruction of meater parplet lyus relating W the Smit, I find mi Reading his reply love on the adrawa question that he news the about doowert + Sham not hum Tosuhum huntound logue fru Jus Bolode West hut My U.S. Assay Office New York

HR Sinderman, wants copies Uint Instructions and Uint Laws



Settlers: -Jo put From Durch

1876

to make some remarks upon your idea, of making our silver fractional coins a legal tender in your country, to any amount.

If they have accumulated there in such quantity as to make them capable of standing as the specie basis for your home fargments, there might be wisdom in adopting them for that purpose. They would be more steady, and more valuable, than the paper currency, large or small, which we have had for about ten years, although they would be transactions. This effect would follow; that you would have one kind of money for home purchases, and another kind for transactantic dealings. Gold would be at about four per cent premium, and of course would not circulate among you. Verhaps it does not now.

ernment contemplates the issue of "shinplasters," meaning I suppose small notes.
We are now suffering from this poor
substitute for silver, and anxious to find
some way of getting rid of it.

New respectfully
your obt servant

William Brown Esgr. 549 Duchester St. (7. S. over.)

P.S. I would thank you to inform me what are the relations in your country, by law or custom, between British, Colonial, and United States moneys; and whether you now keep accounts in founds and Shillings, or in dollars and cents. Also, whether the Canada selver Coin of 1858 bears any considerable part in the currency. And lastly, whether there is any considerable amount of U.S. gold coin in your Banks and Fort Treasury:

for there pure harden and a red to their d

that you much have me hims of minery

transactions. This effect much felleri;

large a small, which we have has for which

and more ratuable than the haper currency

to that purpose. They would be more deal

British silver coin is 925 fine; ours is 900. But in making companions, the reight is also to be taken into account. To then, reducing the terms to a level, and stating the matter as plainly as possible, the same amount of absolute silver, which is made into bb shillings, is made into 612 quarter dollars. So you see the voror in your supposition, that "we coin more quarters out of a pound of silver than they do shillings in England." and withal it is added "they pass as the same I believe the foregoing answers all your inquiries, or gives you the means of drawing all the inferences you aimat; but if not, I shall be happy to reply to any further questions. I will thank you to send me a specimen or two of the new silver coinge, that we may compare it with that which was coined for Canada about 1858. Or, if not different from that, please inform me. - The value of any specimens

Sintended to close here, but whom another reading of your letter, it seems proper

you send will be returned?

On this basis the English silver currency has stood for many years; and lately, some of the other European nations have been obliged to resort to the same system. Its proper effect is to prevent exportation and hoarding. But all such coinage ought to be restricted in amount; the evils and injustice of over-issue being very manifest.

Jam now ready to remark, that if gold is your normal measure of value (or paper interchangeable therewith) it follows that our fractional silver coins cannot justly be made a legal tender for any amount." And I take for granted, without knowing the standard to be used in your new silver currency, that it also is over-valued, so as to make it fit only for small payments, or making change.

The market value above mentioned, gives 4 grains silver (900 fine) to the cent. Now divide 384 by 4, and you have 96 cents as the intrinsic gold value of two of our half dollars, or ten of our Dimes. Thus you see they are 4 cents below; but being legally morth 100 cents, they are of course over-valued by 4 per cent.

weight was instituted by law in 1853; and at the same time, such coins were limited in legal tender to five dollars.

Of late years, as you know, the relation between gold and silver has undergone a change in the market of bullion. Consequently our shole silver dollar marked sells for more than our gold dollar, by a little over three per cent. The average of sales at London, the great bullion market, shows that one ownce of silver 900 fine, is north 120 cents in gold of the same fineness. An ownce of gold 900 fine being rated by our law at \$18.60.46, it follows that the relation is about 15.42 to 1. You say 152, which is near enough.

At the fractional rate of 384 grs. to the dollar, the ownce of silver is, mith us, made current for 125 cents, or five cents more than it is intrinsically morth. The object of this over-valuation of silver, you readily understand, was, to keep these fractional coins in their true place; that is, a subsidiary currency; not for large payments, but simply for making "change."

Mint of the United States
April 1870. In faming a reply to your inquiries, under bate of 21 april, I am somewhat embarrassed by the want of a clear understanding of the present Condition of Canada Cumency .- You State that the Government is trying to drive out the U.S. Selver coins and substitute shinglasters; and in another place, eve are getting new selver coins. from England." With all this mixture, I take for granted that gold coin, of England, is current without as the chief or normal standard of value. I shall however, try to answer your questions clearly, so that you may be able to apply them to the case. We coin Silver at two rates, or Standards offmeight. The whole dollar weight 412 2 grains, and contains the Same amount of silver as from the beginning of the Mint. The fractions of the dollar, are at the rate of 384 grains (0.80 oz.) to the wollar. Both. Kinds are 900 fine. The fractional

549 Sorchester M mentreal 21 april 1896 The Director of the U.S. Mint In this country then her been ber a long him quet tiable Hors by a discount of 4 6 5 per Cent on the Tilver Cini. of their fact of Theuldseppe grave well sware. An com's in use are nearly all avenien. appresent this City is in a slet of painie about it April Crysing deren, the corner prime talking Them at par of the Justinials having given much thought to the Julyis of Verrency - to walle the alver alegel to-det for any fragments at pai a face value. This course has with be their might to drive at the court mestatute Munplanters. of comme

Then has been a guest deal of knowpaper Continuency From are to have a moss meeting to night I am anxions to get futher aformation the I lossers about the comings or have thought of uniting gon. I took the blest to alldress In Bortwell you Jecutary The very Many through replied - stile his letter dos het clear up the punts to my mind, Iw. B. says that zone When is '900 fine weight 384 gu to the dollar of extrinating gold at present to be 15% times more woulder than siture therefore silver would be 4% discount how why the there is can per thindly inform we hero this follows . If I asked you What is the intrinsic balue of Silver, on het of The prepart Landon frias as made it only 14:61

that below com is really less valuable then jold cern that is a silve dollar Them a ford dollar? If so why? Sam aware that in lengton asignment of 10 per Centris Chapet a Solow comop & 1 have an silver. Is it This which wells the difference. if there is any deffermen? Is my position Cornet! that silver as a converg, kis of eynel value with ford? So Jun proportion of alloy in June gold comes larger than in silver a, in England? I believe you com more quarters out of a point Silve then they do shillings or ang. They pass as the Jame have. No Bontwell Strulls an Document in the Liber is caused by its redudancy. I have doubt in

the front for redundant currency Cause increased prices. I cand Der Low redundancy so called, Can cause discount a defference tetween corneges of equal mint Value. of corner of can easily Lee how it will cause difference be twee excessive casives of paper o com in relative value. we are getting and new Tilver Cining from England. I thrill it a retrogade step for we can here have a better Silver currency than the Mo. Do you think This hear Silver con will remain with uso I will feel fully obliged if In will Kind talle the trouble I uply to these possition. If you have any printer mint regalist & Down I wo he glad to have them I presume Iman Farthfully grown of from 3 Sportsonn

Min Brown, Esq. 549 Dachelles St. Montreal, Canada. heguire, about the relative and in trusice value of U.S. coms Silver Comes &c Rec 3/70

APR 18 1870 United States Treasury.

Proston Cypil 16 1870 of 1858 is duly we'd. I thank you kindly for your examination and refrest concerning the coin, I would request that the value 3.70 might be returned to the Office. your very lovely Acrich Treas US. Han Car. Pollocke
Ductor of the Munit

Philadelphia

Assistant Treasurer, U. S.

Boston, afe 16 1870

No. of Papers,

Subject, Requests actures
of bal q # 1/2 Saft
Sunt for Examination
and assers.

(\$3.20 mailed april 28. 1870)

APR 18 1870
APECEIVED:

Theasung Department, Office of Comptroller of the Currency. Washington, Cp 34 , 1870. A Draw Frencher I am my much whely all for your letter + tables The infunction is intenting + balantle + shows quet fully in your west - If you can plane such me like tulls on to delime of The I smaller frame gold tiller - Of course of the vination in the puers with he I more bright but I have no doubt the of facts with show quite infants There Shouler +1 I ilro Enclose a talks of westings I'V with the regard That add The pigning for the year 1869 - Kelles Stends after in the bloke today , I will said a

Washington April 19.190 John Day Knox DEpty Comptroller In reference to harlage APR 21 1870

RECEIVED:

United States Assay Office New York April 20 1870.

Osir: I have today formanded to your by adams Express bo. \$1,860.76 in gold certifi: calis, being the amount received from mr. Edward Balbach Ir. for the 52 bblo. Saw Francisco Branch Mint Sorups Sold to him by your direction. I also draw on you for \$28.00 in favor of adams Express bo. for the payment of cantage o cooperage of said streeps.

Very Respectfully,

Very Off. Servant,

Hon James Pollock. Thos C. Statore Director of the Mint. Superintendent. Philadelphia.

DOMESTIC BILL OF LADING.

a agran	
APR \$1 1870	C. ADAMS EXPRESS COMPANY.
TEGENED!	Great Eastern, 76 EXPRESS FORWARDERS, Abestern & Southern
COD	10.3. \$1860 - Yola Jew- West 1/ www 201870
RESS	Received from Dufto Defeto, any Office
EXP	Witteen Parecura and section 96/dolla Galocate
ADAMS assioned b For the Con	Addressed Tun far Sollves Of Squater as Sollwest
our	Upon the special acceptance and agreement that this Company is to forward the same to its agent nearest or most convenient to destination only, and there to deliver the same to other parties to complete the transportation—such delivery to terminate all liability of this Company for such package; and also, that this Company are not to be liable in any manner, or to any extent for any loss, damage or detention of such package, or of its contents, or of any extent for any loss, damage or detention of such package, or of its contents, or of any extent for any loss, damage or detention of such package, or of its contents, or of any extent for any loss, damage or detention of such package, or of its contents, or of any extent for any loss, damage or detention of such package.
ED luy st loss CE, \$	any portion thereof, occasioned by the acts of God, or by any person or persons acting of channels to acts of any armed or other mob or riotous assemblage, piracy, or Government of the United States, or occasioned by civil or military authority, or by the acts of any armed or other mob or riotous assemblage, piracy, or the dangers incident to a time of war, nor when occasioned by the dangers of railroad transportation, or ocean or river navigation, or by fire or steam, the dangers incident to a time of war, nor when occasioned by the dangers of railroad transportation, or by lightly for a greater sum than that above
SUR	unless specially insured by this Company and so specified in this receipt. In no event is this Company to be hable for all greated and so specified in this receipt. In no event is this Company to be hable for a greated and state, mentioned, nor shall it be liable for any such loss unless the claim therefor shall be made in writing, at this office, within thirty days from this date, mentioned, nor shall it be liable for any such loss unless the claim therefor shall be made in writing, at this office, within thirty days from this date, mentioned, nor shall it be liable for any such loss unless the claim therefor shall be made in writing, at this office, within thirty days from this date, mentioned, nor shall it be liable for any such loss unless the claim therefor shall be made in writing, at this office, within thirty days from this date, mentioned, nor shall it be liable for any such loss unless the claim therefor shall be made in writing, at this office, within thirty days from this date, mentioned, nor shall be made in writing, at this company of the lable for any such loss unless the claim therefor shall be made in writing, at this office, within thirty days from this date, mentioned, nor shall be made in writing, at this office, within thirty days from this date, mentioned, nor shall be made in writing, at this office, within thirty days from this date, mentioned, nor shall be made in writing, at this office, within thirty days from this date, mentioned, nor shall be made in writing, at this office, within thirty days from this date, mentioned, nor shall be made in writing, at this company of the habit of the lable for any such loss unless the lable for any such l
Insu	Freight, For the Company

N. Y. Assay Office

Encloser Expert ace to for # 1860 26 per for 52 bly Som Frank Sweeps for Diff





United States Assay Office New York April 221870.

I have to acknowledge the secrept of \$28.60 through Obdams less. Co, for payment of cartage or cooperage on San Otran-I also Rend herewith a detailed Statement of the Sale of said Smeeps, with a copy of the Statement of the Greasurer of the Branch Mint Sent to me by you, of the bid of Mr. Very Respectfully Yours, Those Stelon Superintendent. How James Pollock, Director of the Paint, Philadelphia.

ny assay office

Encloses Statement Ve of Saling San Franc. Sweeps her Ship "Janane."



MINT OF THE UNITED STATES,

MELTING & REFINING DEPARTMENT,

Philadelphia, 23. April. 1870

Hon James Pollock

Director, U.S. mint

Dear Liv,

I regret to be obliqed so often to call your attention to the Silver Deposits, received from the h.y. lefsay office, but the accounts of the hunt, as well as my own, demand it, & Sam sure that This will be a sufficient apology.

Several of the special numbers of deposits in the last few invoices of Silver from h. y. required toughening at our expense, always attended with expense and lofs.

We have been in the practice of accepting the N. y. weights and assays, having generally found them correct, but formerly some little allowance was made for remains of flux on bars, and other surface impurities, as well as for moisture contained in them. Latterly we allowance has been made, and the undoubted

consequence is, that the mint has paid several ounces more of silver than tit has received on some of the late lots from the assay office. If the answer to this be that the assay office has paid tothe Depositor precisely the amount charged tothe mint, our reply is that they have unquestionably overpaid the Depositor.

bery touty yours Ial Booth m. S.R. Jas Bootto Complantof Silver deposits from N. y. assay Office. Rui apl 23/70

Chief Coiners Department

1			Ø T			
4	companyes	Occupation	Compensation	Date of Appointm!	By whom Appointed	By evhat authority paid
M.	V. Davis	Asst to Chief Coiner	\$2000 for annum	Appointed bluk Oct 165 Asst To Chief Coiner Dec 1866	Director " with approval of President, under	DEFLIPTION OF THE
6.	Calhoun	Heighes	5. per diem	may 1853	of Thisident, under Sect 3. act Jany 18.1837 Situe & Brown 9.137	163
A.	Stief	Asst "	\$ 4. " "	Nov 1866	"	1.8% s
	Thompson Barger	Counter	8 3,25 " "	Aug 1853	"	1570.52 150.19 577 175 177
		"		Nov 1861		5.62 18
	Doiff	General Fouman	\$ 2.25. " "	Nov 1850		Sha &
	. Farrett	1	* 4.25	April 1843		" " " " " " " " " " " " " " " " " " "
	Bumm	Koller	*3.25 " "	June 1861		1. 2. 2. " " " " " " " " " " " " " " " "
2	ower	"	\$ 3,00 " "	July 1830		1864 1864 1868
0	nderherchen	"	\$ 3.00 u u	April 1861		25. 16.1
	k. Sommers	"	*2.90 a a	Aug 1864		ing after
	Hunterson	"	\$2.90	Sov 1862		1. 160
No.	Wilson		\$2,90 " "	Sept 1860		of fizea of hord the officered where of his officered in the telestral in
	R. Smith	"	* 2.90 " " * 2.90 " "	Meh 1869		to age
	I Lyle Cogus Rogers	/ -	\$2.90	June 1869		Contraction of the state of the
	Randall	"	*2.90	June 186		20 39 mes
	c Cartney	"	\$ 2,90	June 186	9 "	All Ships
	night	"	\$2,90	June 186	9	La fin the :
G. Grij	//	"	* 2,90 " "			lad lad
P. A &		"	\$2,90 4			non'
	- 1	Annealer	\$ 3.50 " "	0		uct less
6. H 6	, , & .	12/10/20 156	\$ 3.00	"		or the state of th
	insley &	"	\$3.00 " "			Tam foll
E. Her	1110 1	"	\$3.00			see as
4.6.8		"	\$3.00 " "	and the state of t		taut of a
J.A. I	leyer	"	\$3.00 ""			tion ing t
A. Lein		"	\$ 3.00 " "			ria rion foru
A. The		"	\$ 3.00	The second secon		worn to me
	Sickels	"	\$3.00 " "			as the
0 0	Barnes	la H	\$3.25	1 10		ul (nobe
- (illespie	Cutter	\$ 2,85			our o
24.20	//	"	\$ 3.00 -			See Ole
X J. J		"	\$2,90	1		i at
	Briers	·	\$2,90.	~ 1 101		120
	Thorp	"	2,901			

Chief Coiners Dept (Continued)

		<u> </u>	uf Corners &	cept (con	chuice)	
	Comployes	Occupation	Compensation	Date of appoint-	By whom appointed	By what authority haid
	S. C. Bowen	Cutter	\$2,90. per diem	Sept 1866	Director	
	G. Hansell	"	2,90 " "	Jany 1869	"	
20	S. Murphy	@ #	2.90 " "	May 1868	"	
88	M. R. Hunder		2.90			
	H. G. Weldy G. E. Clark		2.90 " "	June 1869	,	
		"	2.90		4	
	9. H. Diefenderfer	"	2.90		"	
The second second	. Heritage	"	2.90			Y
	D. K. Hartzel	"	2,90 " "	aug 1869		ab
	. Gilfillan	"	2.90	Sept 1869	^	24
	. I. Eshbach	it	2.90 " "	" "	16	4
10	. E. Cook	и	2,90	June 1869	,	
9.	Reed	Cleaner	3.50 " "	1861	"	
di	1. Crawford	4	3.00 " "	1861		8
	9. Hayter	"	3.00	1861		to
	F. Scheidt		3.00 " "	Feb, 1869	-	Jan (
87.	Me Cauley	7	3.00 " "	Oet 1865		3
1	H. Downing	Coining Room	0 1-	Aug 22. 1864	"	me
1	H Helpich	"	3.50 " "	June 1869		0
	mitchell	"	3,00 " "	Squa 10. 1521	"	3
	S. Fuller	п	3,25 ,,		1	11/1
24.	Engles	,	3.00 " "	Sept 1. 1862	u.	2
9.5		4	2.90 " "	June 1869	^	7
S.	James '	Machinist	4.50 " "	Aug 1861	n	9
		A	4.00 " "	1837	"	No.
	, ,	4	3.75 ""		n	
A	4. Caskey	n Annual Control	3.60 ""	1865	"	7
21.	H. Webb	4	3.60 ""			
	U. Clements	,	3.60 " "		a	
21.	D. Sones	"	3,10 " "		"	
24.	H. Schlemm		1.00 " "		"	
	B. Corson	Blacksmith	3,50 " "		"	
0	Bones	"	3,00 " "		*	
100	M Aevil	п	3.00 " "	June 1569	*	
	u Hill	η	3.00 " "		4	
R)	. A. Carpenter	10	3.00 " "	n n		
Alleria		The second second				

Chief Coincis Deft. (Continued

		(cept. (60m	anued)	
Employes	Occupation	Compensation	Appointed	By whom appoin-	By what authou't,
9. 18 Cowden	Carpenter	\$ 4.75 perdies		Director	paid
H. G Lamon	h	3.25	Quine 1861	"	
B. S. Buckman	"	3,25	July 1861		
R. Smith	. 0	3.00 "	May 1869		
H. I Magee	Tainter	3.25	Aug 1861		of la
H. F. Gauss	Gas Fitter	3.25 "	Sune 1869		1
A. Kilpatrick	Engineer	4.75 "	Aug 1861	"	13
A. L. McGinnis	n	3.50 "	1852	4	
I. Clapper	"	3,25 "	June 1861	n	E
J. Huntley	4	2.90 "	Dec 1861		13
H. Boyer	1	2.90 "	april 1868	"	te
W. H. Wakefield	Fireman	3.00 .	aug 1867	4	
H. Harvkins	A	2.90 "	June 1869	"	
B. Burrass	Oiler	2.90	1864		3
S. L. Graham	Fate Keeper	2.75.	May 1869	"	non non
G. W. 78 nown	Sabour "	2.75"	June 1869	*	13
A. Stunt XI. Richardson	^	2. 85 2. 60 "	June 1862 May 1869		3 Est
24. 24. Linn	n	2.75 "	aug 1864		7
Fi Goung	4	2.85 "	June 1861		7
H. Burman	"	2,75"	June 1869	*	n
S. K Gardner		2,75"	" "	4	3
I. Mitchell		2.75 "	Sune 1860	7 "	3
S. J. Koch	"	2.75 "	July 186		8
S. McMichael	7	2,75.	Sept 186		
R. Broomall	А			-	

Ladies Roll Chief Coiners Department

	Employes	Occupation	Compensation	Appointed	By whom appointed	By what authority
	M. Richardson	Coining Room	\$1.75 per diem		Director	
	J. A. Cheston	"	" "	May "	"	
	M Almond	4	n .	Dec "	A.	
	R.A.Me Manus		" "	Jany 1855	"	
	M. Spafford	,	" "	March 1856	"	
	K Stoy	•	n n	Soo 1859		
	6. Williams		" "	Oct 1858	"	
	M. Bailie	*		Nov 1858	*	
	E. E. Mc Allister	"	*	June 1861	"	
1	S.A. Byer	п	" "	July 1861	"	2
-	M. J. Bryant	"	<i>n n</i>	July 1861		hay
-	M. & Shuman	η.	11 11	July "	"	1
1	M. S. Dougherty	η	^ /	Sept 1865	"	fis
	M. L. Rose	"	" "	1866	"	The state of the s
1	A. Wilson	4		1866		and the
7	A. Price	-		July "		1
	M.M. Cross 6. E. Milligan	,	" "	Sept "		guo
	. S. Bonsall		" "	May 186	9 "	7
	. Nebinger		" "	Dec 186		13
	K. Gibbon			Meh 186	9 "	Jel
			и и	June 186	9 "	7
	b. Cannon			Jany 180	8	77
	. Kandall	"	" "	June 180		en
d	S. Hagner		" "	01 1 16	60	
0	1. L'Inego		" "	Ful 18	69 "	Su
2	A Hutton	-	n n	Scht 180	69	
	. Breidenhart		800+	egu	50	
	6. 6. Thorn	Adjuster	\$2,25 "	May 180		
	R. Barclay	n	1.75 "	0 0 10		
	M. Loughridge	4	" "	July 186		
CV	a C Robinson	n	N	May 180	56	
1	A. L. Robinson	۸	n n	Aug 186	8	
C	I. Iloran		" "	Oet 150		
	E. Janney		n n	Oet 186		
	E. Giller			(11) 00 /50	55	
1	E. F. Meyer					

Ladies Roll (Continued)

	Ladies Holl (Continued)					
4	Employes	Occupation	Compensation	appointed	By evhom appointed	By what authority
	E. Thorn	Adjuster	\$1.75. pr diem	Dec 1868	Director	paid
4	X.M. 78. Saunders	н	" "	Die "	-category	
	L. George	" Auditor	Hill er	Feby 1869		
	U. Finney 6. Shuman	r,	" "	April "	,,	Z
1	E. Bond	11	" "	June "	"	hag
X	I. Davis	ti.		May "	**	t
X	K. Lee		" "	" 1868	"	Les .
X	K. Halkinshaw		N 19	April 1869	"	
	R. Me Carty		A	June 1869	4	0
X.	U. Jaggers		n n		"	13
	U. H. Griffith	ц	n n	n u	n	0
CA	A.A. Bannatyne	4		" "	*	No.
7	E. Satour	n	11	" "	"	65
	U. A Jones	fa	" "	- 1 1	"	2
) =	D. Patton	"	11 11	n n	4	6
2.5	, Scanlan		" "	Suly 1569 Sept "		Et
	E. Clark	"			"	1 2
1	Retsehman	"		llug "		1 3
0	W Lean	"	n u		"	1
	Wade	11		Solt		Ja P
	llagell	"	11 11	Sept "		
	Lockrey	11	11 11	July "	"	3
O. a	laurence	16	" "	June "	t e	9
	Landers Res					
	THE STATE OF THE S					
	4444					
	Manne					
	Brahm	A DESCRIPTION OF THE PARTY OF T				

Melter an Refiner's Department

	- de l'agricis siepariment						
		Employes	Occupation	Compensation	Appointed	By whom appointed	By what authority
		S. 73. 180yd	Accountant	\$500. per diem	May 1869	Director	pare
		I. Mirkil	· Heigher	500 " "	. 1852	"	
	3	J. Mirkil	Fouman Welletter	4,50 "	Sune 1861	"	
		12. Chapman	melter	3.75 "	May 1861		
		E. H. Halton	Helper	3.75	" "	**	
14	V	I. Corneilus	10	3.75 "	June 1869	14	
	1	F.C. Garrigues		4.50 "	11 1861	4.	
	1	D. Condle	SilverMelter	3,50 a	Fely 1857		
	1	B. Jones V	0	3.50 "	Nov 1852	ii .	Y
	10	Harvey V	Told Welter	3.75 "	April 1853	ч	3
	1	D. Blair	Helper	3.25 "	June 1861	**	The state of the s
	10	7. White V		3.25 "	Sept "	"	
	9.	It Summers		3,25-4	April 1849	,	J.
	0	. Guyger V	Horster	3.00 .	Lune 1867	*	7
	1	Kerlin V V	Furnace Ruilder	3.50	Dec 1864	"	9
				3.50	Ma. 1850 April 1836		the state of
10	4. 3	Summers &	Refiner *	3.50 n	Nov 1852	40.	June
12	4. (Peak V		3.50	June 1861	"	J. W
/ /	1	Viegand V		3,50 "	1869		0
) ouglass v	7.	3,25	1867		16
1	11	e Quaid	Pellin Sich Water	2.85 "	11 1861		3
1		EQuaide /					2
		Henry	7	2.85 "	1861		3
1		Williams	Fouman	3.75"	a 1862		8
11		Beckman	Melter	3.25 11	Oct 1864		
100 TO TO TO TO		barson		3,25 1	March 1867		
		1		3,25 "	0 /	*	
				3.25."		14	
J.	9	Morris		3.25		•	
×g.	6	Donahue	To remove moulds	2,90 "			
9	. C	Ulcom 1		2.90 "			
		Green	. open "	2.90 "		-	
The state of the s		Schwartz	n n n	2.90 "			
1	1	armhold	a close a	2.90 "			
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0		llerehant					

Melter and Refiner's Dept (Continued)

Employes	Occupation	Compensation	Appointed	By whom appointed	By what authority
I Toomey V	ão return moulds	\$ 2.90 pr diem	June 1869	Director	hage
J. R. Taylor	Ingot Cleaner	2.90 "	11 11 11 11 11	"	ni,
S. Goder	u u		Sept "	"	
J. Haslet	~ 1 /	2.90 " "		4	3
U. Maher	. " "	2.90 " "	Oct "	"	nbu
E. Hughes	" Topper	2,90 " "	1861	. "	Con
4. 2. 18 nooke	Buckdayer	2.90 " "	may 1869		8
4. F. Nice	Late Tender	2,90 " "	Sune "		let.
. Hanna	"	2.90 " "	Feby 1862	"	Seel
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Engravers Department

	Comployer	Occupation	Compensation	Appointed	By whom appointed	By what authority		
	Il Sprecht V	Press Room	\$ 3.00 per diem	Aov 1864	Director			
	J.G. Stuckert		2.90 "	May 1869.	111	2		
	G. Wheatley V		2,75 "	Sune 1869	"	hay		
	R. Sefferson	Die Room	5.50 "	1862	"	tin		
3			4.00 "	June 1861	**	R.		
	I. Orth		3,50 "	1863	"	uo.		
	S. Edwards		3.50 "	June 1861	10	tia		
	I. Mc Cann	4	3.50	Sov 1864	**	· on		
	I. Lower V		3.00	June "	"	14		
	6. 6. 18. arber V	Engraver	H. 00 "	1869	Dinator	act		
H	W. H. Keys V	· ·	6.00 .	1864	"	se.		
1	G. Soley	Machinist	5.00 "	June 1866	"			
	J. C. Pollock	Pay Rolls & Medals	6.00 "	May 1861	"			
1				08, +				
1				Departm				
/	W. E. Dubois	Asst Assayer	\$2000. per annum	1835	Director with approval of President, under suit of act gany 18,1837, 518, p. 137	Sect 14. act. apl. 7, 1866. 5+13		
	J. 18 Eckfeldt	Weigher of Gold assays	3.00 per diem	Jan 1865	"			
	Dubois V			Jany 1867		2		
	1. Outerbridge			June 1869	*	" "		
6	. 13. Hare V 3.	buman of Laboratory	5.50 " "	1830		1		
A.	9. Howland V ?	borkman "	3.50 " "	Sept 1861	"	The state of the s		
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Directors Roll

				XXXXX	71000		
	1	Employes	Occupation	Compensation	appointed	By whom appointed	Bywhat authorit;
		H. C. Hickok	Directors Clerk	\$2000 per annun	. May 1869	Director with approval of President See 3, act Samy 18, 37	0%
		A J. Kirk	Harrant Clerk	500 per day	, 'June 1869	Director	8
	1	IS. C. Pollock	Register	5.50 " "	May 1869	"	200
	1	R. A. M. Clure	Cabinet	4,25 "	Dec 1868	"	n
		6. 21 Earl V	41	4,00 m	Fely 1840		Jan 1997
		I. Butler	η	4.00 " "	May 1869		200
	1	6. U. Wilkins	"	3.50 " "	June 1869		ide
	1	21. P. Kirk	"	3.00 " "	April 1869	4	3
	1	S. Illoney	Messenger	5.00 " "	may 1869		can
	1	T. K Dogel		4.00 u u	Nov 1864	"	9
	3	1. Birnbaum		3.00 " "	aug "		al
	(1	Thor Crosby	Door Keeper	4.00 " "	May 1862	e,	in the second
	47	LE Rulon V	4	4.00 " "	Stov 1865		8
	Xx	2 Curry V	4	4.00 " "	May 1869	"	0
		. C. Concannon		2.75 *	May 1866	"	38
	0.	& Maxwell V	Conductor	4.00 ""	Dec 1865	"	6.
16	4	Woch Waurier	"	4,00 " "	May 1869	"	Met
1		2 /	eight Hatch	3.00. " "	May 1869	4	Su !
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and the second			16 19	2.75 " "	tr .		13/4
			THE PARTY OF THE P				

Slatement Employer of U.S. Mint March 1870 giving name, occupation, compensation, date of appointment, by whom appointed, and under what authority haid.

number of persons, male and female, baid out of the affire prations of longress, and from the Cent Coinage fund, and yours opinion in reference to a still further reduction of the force employed a Very Respectfully Genetury of the Freasing Hon James Sollock & Director of the Mind & & Philadelphia Pa & 1144161616

Stry Readury

Kas rec Directors'
Repart of Tet 21, of
acit of Comage-nette
brutting free & Expends
for last of Months.
And direct 50 mon
discharges to further
gradual reduction of
Employer from them



not paid out of any direct appropriation of longress 218-(145 males - 43 females -) and these employee's are paid from the balances according between the actual cost of the cent coinage and its par value.

As it is probable that the demand for the Cont coinage has nearly ceased, the large number of employee's non paid from that source should be very greatly reduced, and those really needed upon the gold and silver Coinage, or Chiefly employed in that way should be paid from the appropriation of wages of worknew."

You are authorized to reduce the force to the number of fifty, as you propose, and I am of the opinion that a much larger reduction may be made gradually from those employed upon the minor Coinage.

Of the fifty persons proposed, to continue the reduction as rapidly as is consistent with the efficient discharge of the different operations of the Mint, reporting to the Department monthly the amount of the gold Dilver and Cent amage Separately, the

MAR 4 1870 Trensmen Department. PECENED March 1870

Sis:

A have received your report of the Distuttino containing a statement of the business operations of the Mint for the seren months previous to July Dichlethino, and the number of Employees Engaged in the manufacture of the gold and silver and the minor Coinage, from which & find that the number of Engline's in the Mint during the month of January was Males 384, females 13, total 317, and that the average amount paid to Employees including Officers and Clerks engaged on the gold and silver Courage was \$11.328.68, and on the minor Coinage \$15.999.99. The amount of minor coinage executed in December was \$ 15.440. and during the mondo of January \$ 33. 845. So that it is probable the expense of the manufacture of that coinage, including the material, was nearly equal to its partalued. On the pay rolls for the month of January, on file in the Department, to which you refer, I find the names of 86 males, and 13 females, total

United States Treasury. New York March 1st 1870 Sir Enclosed please find two five cent coin, on which I ask your opinion as to their genineness; There are doubts in regard to them; they being different from the majority of pieces presented for redemption, and yet unlike in some respects, the pieces you pronounced counter feit about a mouth ago. There appears to be a great variety of the five cent coin afforat; we have two kinds of spurious coin, and some of us think there may be more. These are different in eolor and have a Remembat different die from those we know as base and gemine.

like your opinion of them, as we have no other way to determine or decide the doubt about them, an early answer will oblige Yours Respectfully R.C. Haff The Director of U.S. Mint-Philadelphia

R.C. Haff newyork march 1/70.

Enclosing 2 five cent coins. Doubts as to their genuineners

Rangelig dansk Gesandtskalt Royal Danish degation in Washington Mushington, A. C. MAR 4 1870 Jon. H. X Linderman ... Derector of the U.S. Mins in Theladelphin. The Royal Danish Cabines of Medals in Copenhagew is very desirous to complete its collection of american medals, of which it presently possesses but the following five 1.4.2. Washington 1790 x 1805; 3. Admiral Trebble 1804; 4. The outlet from dake Erie to the Atlantic 1826; 5 Cax tow, the Exhibition of 1852. Deing requested to inquire whether and to which extent this end can be reached with the presently, very limited funds of the Cabinet, of take the liberty to address myself to you on this subjects. I would, indeed, be much obliged to you for furnishing me a list of the medals struck at the mint and there to be pur chased; and for marking out of the number those, which you, with your special know. ledge, would judge the most fitted to represent the american serie of medals in our collection from a scientific numismatic standpoints; finally to indicate the price of each medal in a well struck bronze copy without case. They leave dir, to offer you beforehand my thanks for the information you may be Kind enough to give me, and remain. very respectfully very respectfully
your obed Servans Hoille

Janish minister.

Washington be Chiki for Light of fruce of Medals at Coparhagen. ans Mest 4/70 50 par cent of

MAR 4 1870
RECEIVED:

Rungelig dansk Gesandtskult Mushington, D. C.



Danish Legation. Washington D.C. March 5 1870.

Sir.

answer you have given to my request concerning the aequisition of american medals for the danish Collection. I shall loose no lime in communicating it to the Director of the Pabenel in Copenhagen and shall take the liberty to address myself to you on his behalf as soon as I receive his reply.

Jam. Sir,

Very respectfully.

Janish Minister P.

Hon J L. Tollock Director of the U.S. Mins. Thetadelphia. Han. F. Bille Danishellingten Med

Adl'g offer to Sele

Brown elected of at

To pu of discust.

Wite admits the

Noneta of Markenish

Cabinet & Expertish

answer



Mint of the Ubnited States. Thiladelphia March 7 1870 Hon James Pollock Director to Dear Liv In specimens of five-cent nickel coin, forwarded to you from the U.S. Treasury at New York, and supposed to be spurious, have been submitted to all the tests which come within my province. One was about one grain heavy, the other about one grain light. Tood pieces may vary this much. - Both were of the right specific gravity. - Both contained the right proportion of nickel and copper, by assay. The only remaining question is, whether They were struck in the mint, from genuine dies. This point, of course, will more properly be settled by other officers of the mint. So far as my examination goes, the pieces on the surface may be produced by various

Lorts of contact, or handling, in particular, a carrying in the same pocket, with gum-elastic bands, or sulphurous matches.

Very respectfully your obt servant f. P. Ecksfelar Assugn

Chief Coiner's Dept. Mch. 7. 1870

Hon James Vollock Director U.S. Mint

Sin

Having examined one half of one of the Fine Cent Sickel Copper Coins, Referred to in the above Report of the Assayer, I have to state that I am satisfied it was struck from genuine dies in this Department of the Mint.

Very respectfully

Gordon Snorden

Loudon Snorden

Chief Corner

Recond 8/70 Washington, D. Co. March 7th 1840. How. Janus Pollock. Director les. Mint. Ou The 1º Mondo Me Rop Ma Leentage the Helmich Below Mining Co. sent 13 Ad ans sopuss co. a Silver brien. Marked. 549. 63. 410 fine. - loin Value (Silver) 292.66 Gotof 36.05 total value \$ 328.71 The apayer's certificate form the Mint states as follows, 2° March, 547.85 before metting 54170 after " 338, fine \$ 249. 24 yield defbereng from The sent us from George Town, Elorado, \$ 79,000. Me with you to ascetain if possible whey thus alference officers, as the assays in Ed. is from a sule prom Smettings works., Stewart & Co. The Mutberry The luglust standendy acomacy be have ancluded that by possibility there might be some mistake as to The idutity of the buch, sent by ico: as The aponger of Sternant & Cos assayor les henty

maintained a good repetation as to Copocity so, and me wish the prositionly, before we inform Mepolinado Ilo. of the great discupancy in a well home I will reputed astablishment. It will be purewothed a difference greatly \$6 pr ex exist. and gover assegn sports no gold, in the hor, when the spayor of S.V.C. my \$ 36.00. Be pluse of the me hear four gon on the perfect toblings your very truty W. A. Bengle



Theasung Depantment,

Office of Comptroller of the Currency.

Washington, Mench 8, 1870.

my Dear his

Exem as informal letter-The stock of likes coin in the office of the and he Mit is small. Thereby you propor to be authorized to purchase silver with fly 000 guld now in The bullion fund: or if that fund \$ 1002,429.16 is not lage anyle, would go proper to by Silver bullion with 130,000 gold to be trasfered institute of silver coin. I suffere the romet = The sand would be the same but at present the world he a prefit on The Eiler prochuse. In beging selves now at the hunt de

you pay ing = selves com : if not what

note dus governe. and deports of Elver received at the hint payable in like coin ! some he 4 page 41 hint bufflet rigine believe com To be paid out my for gold at har? " Can you Sund me copy of regulations for transmission of Seher can to ant his retter officers of h. 5. as posided in The same section ? The are havy letters making tocreers inguining relative to Selver counge + I wind to be intelligent on Theo subjects to you will by much oblyone of you will gove me this information,

I am by Til Geny The Taylor

John James Pollock Omates of the hant Maladeffer John Jay Knop Left Jung Cinns Washing he De.

Engines about
the but pland
to punchess
silver for the
Buttin fort



(Copy)

Forvanda 1a . March 22. 1870

Hon G. S. Boutwell Dear Sir

I would be much obliged to you if you would inform me by what authority the Director of the Mint at Philad? Sells the three Sets of the pattern pieces of the 50., 25 and 10, ets denominations for \$3.00, when he charges Collectors for the Same coins \$15.00

Hoping to receive an early reply

Sours Hespectfully

(Signed) Rodney A. Mercur

Rommy Aller Eur Dowanda Fo Stery Reasons Charging Dueto of the ellent with ing-"ulariting in the Sale of daughter of the proposed her delver Carin ago (Copy)

Bath W.S. Mar. 14,1870 Supt. U. S. Mint: Drf: Will ym please inform me , whether 2 Can prouve for your office, Umer, Tilier dellars, for the years 1839-1861-1865-1869+ 1870 - 2 2f se please adrise me hun much I shall remit, to bry one of each and in what fun to remel In answer please duch to me at Bath Steuben Co Yours seny buly Mu H. Shefard

womst, Shepard mar 14/70 For silve Idollaro. of Cutain year, Red MA 16/70

MAR 10 1870

MECEIVED:

March 10th March 18/10/10 et Hon I. Pollout Oh I have experience the Devigns for a Medal, down from treco Hampe hire. with reference to forming an estimate for Engraving View and making Bredals in Votra and Copper, as directes by I consider to engrand the Dies vous nu Cost & 250, The Medals in Dronge nin cost from \$125 to \$175 each. The Vilver, not Knowing the exact bught of cormot write or Vo closely I would vay therefore from \$5. to \$1. each, the time of execution a Iboula like to be allowed as much as they could spoke to Juis their lime of waving them, and boula Ingage, to be puncture to ther, Jours Mestilla

Jm Barber Engrane USMuit MAR 10 IS Costy Dis & merals for N. Of. State age J. S. MINT MAR 10 1870 PECEIVED!

Charlotte, N. C., Moarch 141870

Denve

Hon. Jas. Pollock Derector U. J. Ment ghinst. in relation to an Eagle Stamp" for the Denver Br. Mint, was received on the 11h inst No package has been received to date. Inquiry has been made to day at Ex. Office. Four Box. Veret. Colving Courty

Charlotte Bullino Has nor recitte "Eagle" Ramp for the Klenner Be Muit. Rec Med 17/70

Mint of the Ubnited States.

Philadelphia, March 14.1570

Dear Sir,

Orcerning Mr. Miller's process for refining gold, with some remarks as you requested.

The method is neat, ingenious, and carefully studied; and shows an advanced skill in metallurgy.

where the gold is of high fineness, but mixed with such refractory alloys as antimony, arsenic, tin, tother metals, in however minute proportion. No doubt it is well suited to the gold of Australia, for those reasons, and it might be for the higher grave of Mora Scotia gold. But the general scope of fineness in our own mines, is say from 750 to 900; so that to chloridize so large a proportion of silver

Contained in the gold, mould greatly increase the cost of labor and materials, and the waste of Selver. moreover, a large proportion of silver raised in our mines, contains a little gold, and it is highly advantageous to use a process of parting which admits of combining goldish silver with silvery gold. This would not answer, with the chlorine process. The suffocating and novious fumes of chlorine gas, more terrible even than those from sulphuric acid operations, furnish a very serious objection, because no precaution can prevent some escape. dobserve that there is a good deal of nice and critical detail, which would not be trusted to any but a superior morkman, thuch increasing the expense. I am somewhat surprised that nothing is said about the expense, or economy, of the process. This is a matter of prime importance. I presume it is expected to be cheaper than the methods now in use, but this can only be settled by the figures, with allowance for loss of metals.

Our Melter & Refiner mill of course decide whether it is expedient to make experiments with this process.

I take occasion to add, with

I take occasion to add, with reference to this process, and the Somewhat Similar one known as Besseme's method for making steel, that for silver refining, especially such hars as me get from Revada, it might be north while to try a current of oxygen, much in the same way, instead of using nitre, or other oxidizing agents. It is only the oxygen that we want; and this can be generated and used in manipulation without any annoyance or injury. This however is merely a postscript, not essentially con= nected with the subject in hand.

Nery respectfully

J. R. Ecksfelds awayn

The Director of the Mint.

J. R. Eckfeeds

Assayer Usellent

Mint of the Mitted States. subject, Opinion ors Miller's proces of refining and Separting gold o silve. mels 14/90

gerous in loss of metal. Itill further, there is a very large amount of Liber deposited, containing very lette gold. Both cost and danger would entirely exclude such metal from refining under This Patent, and yet it is precisely such as is specially adapted to the usual refining processes. In this case therefore the two processes would have tobe conducted side by side, which would, to say the least, be exceedingly inconvenient. 7. Far more operative skill, and both constant and penetrating watchfulness, combined with some chemical Browledge, would be demanded of those conducting The chlorine process, and such a combination it would not be easy to command.

From the above views, and their detailed grounds you will gother that I cannot recommend the proeefs of the Patent, as one that might be substituted for our own, or the Julphuric process. To sum up, I would say

I would say, that the Chlorine process is inferior to our own in its being dangerous to health, more liable to cause lop of bullion, and not at all adapted to the mixed character of our deposits, which average a considevable surplus of silver containing lettle gold. Shave omitted all consideration of cost, as that does not seem to have been presented, but I would remark on This, that altho' the chlorine process in certain cases might prove more economical than our own, yet That to estimate such cost rightly, we would have to determine, by long & repeated trials, with all kinds of deposits, the losses resulting from the chlorine procep, which in my opinion would render the process a very expensive one for our use, or in the branch mints. Respectfully yours

Jat Booth

Prof J. Booth Opinia an 7. 13 Milleria process of refining mel 34/70

much more loss occurs, if any other gas or vapor is transmitted through the gold or silver, at the same Time, while in a current fair. Such is the case in this Patent, where chlorine is passed through, while the melted metal is in a draft of air, in order to avoid The escape of noxious chlorine, or even of muriatic acid In The case of mixed muriatic acid and air, which is The alternative in the Patent, and designed to be virtual chlorine, much larger volumes of gas pass through the. melted metal, insuring still greater loss than chlorine

4. another cause of volatilization lies in the volatility of chloride of pilver, which it is the main object of the Patent toproduce, a volatility which the Patent itself admits, as occurving, and as carrying gold with it. The Patent claims the recovery of the silver Agold from the chloride, but it appears certain tome that a certain, though very small

very small, amount would wcape condensation and recovery?

- 5. But gold is afociated with other metals at the same time as with silver, I may contain one or more of the ordinary metals, tin, copper, lead, autimony, iron, Le. how the chlorides of all these are volatile in the presence of air, I some of them at a moderate temperature, apart from or with the air. Their volatilization would necessarily cause that of gold I silver, in quite appreciable quantities.
 - 6. Beside the above, are other objections. The process might be adapted to an alloy consisting of nearly all gold, with but little silver, but there is a large amount of, gold deposited, in which it forms not more than one half the alloy, & since one half the mass or more must be converted into chlorides by the process, the latter becomes far more expensive, & also far more dan-

U.S. Mint Melting Refining Department

Philada 14. March, 1890.

Hon. James Pollock Director of the U. S. Mint Dear Sir,

At your request Therwith offer my opinion on Mr F. B. Miller's process for Refining and Separating Gold & Silver.

I. Its advantages are:

1. Its not requiring Silver tobe melted with Gold, as in the usual processes, but taking the gold in the form of melted bars

2. Its directly separating gold and silver, in a shorter time than usual.

II. Its objectionable features are:

1. It employs clay crucibles, which are very inferior in strength to Black lead Pots, and being liable to fracture in the fire, they endanger the spread of the metals

Through the fire, totheir injury & lofs, for it is rare that all can be recovered from coal, ashes & grate bars. 2. It employs a gas, chlorine, which is dangerous tolife and health, even in a diluted state, and, as a manupacturer, who has used its, I affirm that it is difficult to avoid the odor of chlorine in the vicinity of the apparatus where it is either generated or used. Hence the substitution in the arts generally of the chloride of lime for bleaching, instead of chlorine, on the score of human safety.

3. The Chlorine process endangers volatilization, Athat from several points of view. When melted gold or silver is kept in the furnace, with the usual draft of air pasing over it, there is always a loss of the metal by volatilization, exceedingly minute with gold, but quite appreciable with silver.

SEWALL H. FESSENDEN, S. MINDSfice of the Hoston and Sandwich Class Jompany,
AGENT. MAR 21 1870

No. 26, FEDERAL STREET, Boston, March 1418/4 -mostormy RECEINED. Am Mayums Pollock Queter as Mino Than Jun 12 to Markinger admis The hand always offanger, an adrina our gu ma pois Courseguina of the Bort. Thos paying for packages threight Dryage to the Which a, ho act in ner light t com This it for our intends to the delanamount of his lafe tothis OM hopendon ago

Boston & Sandwich Affroning M. Startogeris lite. MAR 21 1870

TEE OF WID WIELING) Hashington D.C. March 17" 1870 ar III The accompanying 624 is intended to express the views of no Ruggles, late Commepeoner of the United States to the international Comay Conquerce in Paris. love you so me the favor to examino It, and Send me any criticis a objections that may occur to you. he most of its detail it conforms with the present law, some of which your experience may have led you to disine to have modeful or changed. your respectfully, Lundan To the Director of the Michaelphia

Bill on Internationar Coinage for inspection & opinion

Officers of Mint March 15-Th1870
a coin of 1832 Malue Bespt Ch Maters

C. F. Waters Greenville S.C. Enclosing com 7/832 mar. 15/78 Competurned. 16.8 J.S. MIN RECEIVED

Secy Reasury handmit accusation of Rich. Mercur, of oriegulanting in the Saley Sanfle coins J.S. MINT APR 11 1870 RECEIVED

Stead of the Mint who will please refly to the letter.

Sety Stead to the Stay Stay Steady Steady Steady Steady Steady Steady Steady Steady

M 458,

Director of W. J. Mint

Philadelphia Pa

Dear Ser bern refered to you for information in regard to the Cornage of Felver Dollars by the W. J. Multo, specimens of which as have just received from landon! Lieces occasionally comes? My do not the D. S. Mints com and frut ento general circulation the Selver Dollar! I thy and how are they made worth fix cents more than two fr Dollars, by less alleg or more weight? Perfectfully Japhan

C.W. Lappan Elko Nerada

Wants to Know why the Silver dollars whole Silver dollars and the Culation - and the Culation - and the Value are the Small value are the Small land demonstrations.



J. S. MINT MAR 25 1870 RECEIVED!

United States Treasury,

Philadelphia, March 24 th 1870

Dear Sir In response to the request which you made of me at our interview this morning, I have the honor For inform that the balance in Silver coin at this office at the close of business yesterday was \$6.754.00. I am not prepared to say exactly what proportion is new pieces but I think I am within bounds when I state that there are 19000.00 entirely new, having been made for this office at the Mint out of forelgn pieces sent here from New Orleans in accordance with orders from Hashington. The boin Teller is of the opinion that in addition there are several thousand dollars of new pieces coined since 1866 that have been very little circulated; so that in all we have probably from \$13.000.00 to \$15.000.00 of new silver that could be made available for your kurkoses.

Hon James Pollock Director of the Mint Philadelphia

I am Sir very respectfully Your obedient servant Deolegner

United States Treasury.

Philadelphia, 18

Assistant Treasurer, U.S.

amt of "Sew Silver" coin on hand



MAR 24 1870 United States Treasury. I Certify, That Chas. J. Holger, Treasure 20.5. assay Office nel. this day deposited to the credit of the Treasurer of the United States Muteur thousand six hundred + sixty three 100 Dollars, on account of Transfer of available Justit & Dec 3, 1869, pursuant & act of confict of hely 20, 1868

for which I have signed triplicate receipts.

9. 12 1 2 14 Assistant Treasurer, U. S.



United States Assay Office New York Mich 23 1870.

Oir.

Embanied in your letter of Nov. 7th 1868, I enclose Asst. Transurer's receipt As. 310 for \$13,663 to "Available Profits" covered into the Oreasury this day upon my warrant.

How. Sames Pollock, Duicher of the Mint. Philadelphia, Genn? Shot C. Solow Superintendent N.Y. Assay Office

Reports \$13,663 too of "available profit," com-- End in to this Breading U.S. a pa Calification Endosed

(Se 12 Mil & 18. 1868 pap 80.)

MAR 24 1870

RECEIVED:

Washington March 24/ My searfir, Just that you would pener the figures the fave one for the hints on Heighings for delivery to the hensure Superententent) How purposed 100 on each \$1000 - of any denomination fold - It answers very yell for other denominations than the South Eagle Magh parhoularly the former which caushtutes 19/20 the of the Comings

To Example, Estimplantinity 1000 \$ 20.78

Jose 50" 1000 1000 1000 = \$2.78

Jose 1000 20 = \$3.72 If the above calculation is correct Humin percouri that the have increased niskad of dumenes hed the limit, of Inithaning grencoit, Contraction of the lines, has of louise to bearing outh core as the Weighing by droft of anumbus prices is intented as a chell a gunst a weight of single price, sunformily belief the Standard although thether the limit, It was

Washington much 24.1670 H. R. Linderman An refrances

frigued out by one of the blesty of State trans to and the result rather perflyed me, as the present huist is certainly sufficient. Smil enteren to hoed the Sir untie form reply is record, although it is many ready with the sugestion of the limit on drofts oflow, to belaid before the Leveliny, You can Du the English Everage act 1870 me the hand of Me BuBos! - Examen the Schedule of Menghts Colerance to which is a part of the They your Theird A Low den brunden Eg The flower W. J. Muit,

MAR 25 1870

RECEIVED:

Theasury Department, March 24 th, 1870.

MyE

I will thank you to pend sul by return mail twenty five of the Circulars of the U.S. Whit under date of May 30 the 1867 - headed " Public Water - Purchase of Wikel - Copper Cents -Very Kerpetfilly I Hartley Upt. Perday Hom. James Pollvell Director U.S. Wit

Stery heading Mants 25 mikel Copper Circular 9 May 30. 1867, Correspondence U. D., mint Branch Mints, March-1870.



Office of the Poston and Sandwich Class Company, SENALL H. FESSENDEN AGENT. J. S. MINT MAR 26 1870 Boston, MMAN 215 1870 -wosporw-Con Dames Por Quar di is received, two encloses to you statunut of account in duplicate receipted as amount by muil Please unit the

Boston & Sandwich Gall Go Boston Mars Statement of a/e reception MAR 26 1870 RECEIVED



Creasury Department,

March 28th , 1870.

I would thank you to furnish for the use of this Department one hundred ounces (100 cz.) granu-lated silver, which you will please forward to L.E. Walker, Photographer, W.S. Treasury, Department.

Very Respectfully flood to thoeth,

Secretary of the Treasury

James Polleck Osg.

Director Wo Stint.

Philadelphia.

Penna.

Stiy Breasury Wants 100 025. granulated Silve for photographe 9 heavy Deft. J. S. MINT APR 1 1870 RECEIVED:

Wint of the United States,

MELTING AND REFINING DEPARTMENT.

Philadelphia, 29. Mar. 1870 Hon. James Pollock Director U. D. Mint Dear Sir, as I hoped and believed that a considerable proportion of the addition to our Bullion Fund would be fine silver, I have used up all our fine Liber from Refining Gold for filling orders for Fine bars. nor shall I be able to make more fine selver, while winding up my = accounts, because it would prolong that operation, which is quevally a tedious period of six weeks, to more than two months. may I therefore ask you to make an exchange with the n.y. along office, if practicable, of Lilver loin of any desired denomination for their fine silver of not lef than 998 = pineness, & to the aut. of about \$10,000? Hunk that this

amount

will be sufficient to meet demands for fine riboer bars, during the period of our fettlement.

Levy truly yours

Lato Booth

m. Y.R.

*

Pry. Boots, M. +R.

Haut \$10,000 wid from Silver bary, man from My, assay office, not left than 9982 frige in Exchange for Silver Comin - molit annual Settlement is made

Ru Med 29/71



United States Assay Office New York Mich. 30 1870.

Dir.

In reply to your inquing whether a transfer of fine Silver can be made from this Office, in uschange for Silver Com, I am sorry to be obliged to say that such an exchange will be impossible, for the reason that me have no fine Selver on hand.

Respectfully Some,

Thos Colon Superintendent.

Hon. James Pollock, Director of the Mint, Philadelphia.

N. Ef. Assay Office Stas no fine Silver - & Camest therefore make an Exchange for coin.

MAR 31 1870
RECEIVED

U.S. MINT GENERAL CORRESPONDENCE 1870/MARCH - APRIL



U.S. MINT GENERAL COPRESPONDENCE 1870/JULY-AUGUST



Requisition 3rdgr. 1869. Forwarded July 13th 1869 3 Salaries . 1.800,00 Wages of Workmen 3,429,00 Incidental Expenses 1 1000,00 Total ~ \$6.229.00 Ant recewed from Freasy Defit, July 31 1870. \$6.229. Requisition 4 tq. 1869 3
forwarded Oct. 1 1869 3 Salaries,
wages of Workmen. \$1.800,00 3.829.50 Incidental Expenses. 1.500,00 Fotal. \$7.129.50 and received from Treasy Dept. Oct 20th 869. \$7,129.50 Requisition 1 = 91. 1870. 3 forwarded Jany 1 = 1870 3 Salaries. Wages of Workmen. Incidental Expenses. Total. 191,800,00 4.160.00 1,500,00 \$7.460,00 Amt neewed from Freuer Dept. Jany, 24 1870, 7,460.00 April 1 1870 A Requisition for unexpended balances of former appropriations, wages of workmen Jooo. meidental Expenses & D.000. \$10,00000 Received april 13 20 10000,

Requesition 2 - Gr. 1870.

forwarded may 12 th 1870 3 Salaries

Swages of Workmen

Jotal \$1,800.00 8/.00 \$2,381,50 Amt reco. from Treasury Dept June 13 "1870. defference between amt, asked for & and reco." 2.001,50 \$380.00

AUG 3 1870

RECEIVED: Boston, Cung + 2 1876. I have the honor to submit hermith for your ofinion, a coin purporting to be a gold half-eagle of the visue of 1858 "C" and which is about two grains Van Very Cespy Mour Obt Servet 1. Flaven fo asst. Treasurf. Joshu Director of the Muit Thiladelphia Sp. gr. 17.51

Asst Rea, Et S. Boston, Mass,

Enclosing light Weight 1/2 ragli 1858°C' for Examin alter



United States Assay Office U.S. MINT AUG 3 1870 New York Ang. 2nd 1870. I send enclosed my requisition's sepond the Secretary of the Treasury, for Seventy thousand dollars, viz: For Salaries of Officers & Clurks, \$15,000. " Frages of Frorkmen
" Incidental & Contingent Expenses 40,000. 15,000. # 70,000. I have duried it advisable, to save troub. le al-the department, to make semi-anheretofore practised. Will you have the goodness to formand the enclosed requisition at your earlist convenience, with your afficial approval? Ton James Pollock, Jens Out Server Director of the Mint, your Obt Servant-Director of the Mint. Tho Extendent. Cholosing requisition for . . . \$70,000.



Assay office, U. S. Mint August 3. 1870. Hon: James Pollock Director to to Herewith we return the papers laid before you by M' Garbett, agent of Mr. Francis Borryer Miller of Sydney, patentee of the Chlorine Refining Process. We have kept copies of the more important parts. The more we consider this Invention, the more we are convinced that it is a great advance in the art of Gold-Refining. It is so in both divisions; of refining out base and intractable metals; and of refining out the silver alloy, commonly called Carting. On this latter we would particularly offer a few remarks, rather as a matter of record than for any present use; although they may have a present segan significance, in respect to the proposed changes at San Francisco. Certainly this method will not be available for the parting of goldish silver, nor where there is a considerable presentation of silver containing fold in a non-paying proportion, affording that much sold in mixed with gold for parting. In such cases we cannot do better than we are doing, under the improved combination of nitric and sulphunic acids as practised in the assay office at New York; unless our Melter Mefiner finds a still better combina: tion, by experiments now pending, and of which be worked warden his own accommend for down towns

But in the Parting of Silvery Gold, say of the fineness 750 to 960 (which range includes nearly all the gold raised in the world) this Process presents two striking advantages, if we may rely whom the evidences before us, without our own trial, and we have no doubt that the evidences are to be relied upon.

Prist, it is a direct and compact operation.

There is no adding of nearly tince the weight, or nearly four times the bulk, of silver, merely to separate the atoms of fold, to allow the acid to act. It was this necessity which led to the suggestion of the "Zinc Process", or using Zinc instead of Silver; which proved to be no process at all, except of sending gold up the Chimney in Zincose fumes.

But to he dissolving so much silver every time, movely to get at the little silver shut in by the fold, is a large and clumsy operation, where there is nothing to be gained by using silver containing more or less gold. A direct attack upon the gold only, is then a quat improvement, and a fine triumph of science and art. We were naturally suspicious of it at first, but now believe it will do honor to the skill of the inventor.

Secondly, it is a wonderfully cheap operation. It has become to by progressive steps. At first it was estimated to cost five farthings, say 2½ cents, per ounce. A detailed and minute statement for the whole year 1869, at the Sydney Mint, of operations

to a large amount, brings the expense down to 1. Heents, and this includes all the maste of gold and selver, and an allowance of wear and tear of the fixtures and apparatus, ("the Plant") rated at ten fer cent per annum. But the diminution would be still greater, at the prices here, as compared with prices at Sydney. They pay less than we do in wages; but a qual deal more for fuel and acid; and about the on a par for melling pots and minor appliances. So that, by making a calculation mith the same allowanges for \$5 cents (gold) per ounce. This is marvellous economy, and completely Throws the nitric and sulphunic processes into the back ground. There is one offeret however, which mush be mentioned. This mode of refining does not make a higher average than 993, leaving 7 thous. of silver in the gold. Mr. Mason's fine bars are generally 998 to 999; a most admirable result indeed. There is then a loss of schoer, equal to about \frace of a cent on the owner, which must be added to the above expense, making I cents per ounce. This has nothing to do with the maste of silver in the state of chloride, which has already been deducted, as above.) against this cost, I cents, compare the Mint rate of 5 cents, and the rate of 8 cents, at which the San Francisco Refining Company offers to do the parting for the Branch Mint there.

practical one, remains to be presented. Taking your last annual Report, and gold and silver deposits at Philadelphia, New York, and San Francisco, we find as follows. 1. It the Philadelphia Mint, the greater part of the bullion received is nearly or quite ready for casting into injots for coining. In the year 1868-9, we had not over 90,000 ounces of gold requiring to be parted, against 140,000 ounces of unrefined silver, part of which contained mou or less gold. These two amounts are not far from the proportion of tritation, and there bould be not much gained by introducing a process for operating on the gold only. We might however, have the Flant on hand, seady for a turn of affairs. 2. At the New York assay the Office, the case is very different. They had say 500,000 ounces of gold containing silver (natives bullion) and about 560,000 ounces of selver, of original product, much of it containing a little gold. Now supposing for it is not important to be exact) that they had 400,000 ounces of silver which ought to be used in parting, that mould be met by Hers than 200,000 owners of gold to be mixed with it. So that there would be a surplus of over 300,000 ounces gold, having no silver to put with it, except by working the stock over and over; reducing, and pressing, & granulating melting and granulating, merely to get a material all this nock and cost would be avoided, by using the

direct process for gold. It is not a question of saving for the Government, because the law obliges us to change no more than it costs, and we are by fair implication, bound to find out and employ the cheapest method. But it is quite a consideration for depositors of gold to pay two cents her ownce instead of five cents. And it is a consideration for offices of the Government, not to be underbid or outdone by private establishments.

3. The state of affairs at San Francisco Branch mint, presents a third feature, unlike the other two. Here there is aheady an offer, under a recent law, to pass the whole of the bullion over to a private refinery, and leave the Mint nothing to do, in that line. Now we have no addice to offer, to a Company which will take care of its own interests. We have only to show, that in the fiscal year under consideration, the Branch Mint had about 360,000 ounces of gold containing silver, against only 90,000 ounces silver, Some of it containing gold; omitting foreign coin, of Course. We will suppose 60,000 of the latter, fit for parting; to be met by 30,000 of gold. This leaves 330,000 ounces of gold, without original silver to mix with it. Miller's process might cost twice as much there, as here; that would be tince to centy, & 2 cent for lost silver, say 3 = cents. But there is something to pay for using the patent; and there may be other things in the margin, to bring it up to 4 cents. This would be only half of what the depositor is to pay, under the offer of the Refining Company.

at the outset, one of the quatest objections raised by our Meller Mefiner, X by ourselves, was, the distressing and deadly effects of the chlorine fumes. On this point it is but fair to copy what is briefly said in the account of the process, as given by Mess is Sunt and Leibius. Only a very slight smell of chlorine was observed during the operation of refining; the only time when

the chlorine was distinctly perceptible, though without marked inconvenience to those engaged, was during the pouring of the agentic chloride as already described."

This however is a point, as much as any other, on which we ought to be satisfied by experiment in our own house. Oblorine in its full developement, acts hornbly upon the respiratory organs - even a single whiff of it; and we are not to poison men for the sake of getting a cheap process.

Again, it does not appear what price the inventor asks, for using his process. If it is a large sum, it could not be paid mithout a special appropriation from borgress, which it would not be north while to ask for. a better arrangement would be to render an account of its use, and pay so much per ounce of gold refined.

We agree with Mr Booth, that if this process is to be tried here, it should be with the presence and direction of an expert from Sydney; for there is a great deal in being well acquainted with details, and in avoiding errors.

Mr Booth agrees with us as to the intrinsic value of this invention, so highly scientific, well arranged, and successfully carried out. He only does not concur in the opinion that it will work well in removing the refractory metals or metalloids, especially arsenic, or rather, thinks it will be a wasteful mode of performing that sort of refining. This also is a matter we want to see tested, although there is not so much gold presented of that mixture, as silver, in original bullion.

Sastly we must notice an objection taken

Lastly we must notice an objection taken by the Meltu thefiner, that the loss of silver in chloride is much greater than the law allows for his mastage account; being one and a half to two per cent. - The statement from Sydney puts this in as a fact of the expense. But this does not relieve the MIR's account, if the Assayer's report puts down all the silver contained.

This difficulty could be obviated by a change of expression in the report. Supporte a deposit contains 850 parts gold, and 140 silver; of which silver, only 115 parts can be recovered. The assayer could report "Silver Partible, 115." The depositor moved get back his lost silver, and a good deal more, by the lower rate of charge. - If this is not admissible, an act of Congress would be necessary.

We append a Statement showing how the actual expense is arrived at, based whom the papers sent by Mr. Miller. Very respectfully,

1.1%. Eckfeldt Im & Du Bois

The Director of the mint.

A Statement of Operations and Expenses, under the direction of the Inventor, at Sydney, during the whole year 18hg. With a comparison, in our terms, of what the expenses would be at Philadelphia or new York. 1. Wages there, 50 s. a week, say \$2.22 gold fer day. Wages here for work of Equal grade, say \$3.50 curr. from which take 12 per cent., say \$3.08 gold. 2. Their principal freel is coke, for which they pay \$12.15 gold per ton. We pay 6 cts. a hishel, curr. 70 hush. to the ton, \$4.20; in gold say \$3.70. 3. Charcoal - they pay sixpence a bushel, ere pay 20 cents curs. say 17'2 cts. 4. Black lead pots, cost the same in both places; Thench white pots, assumed the same; also the binoxide of manganese; rubber tubes, to 5. Hydrochloric acid - they pay four pence a pound, we pay three cents, say 2.64. 6. Coal gas, to s. a thousand; we pay 2.30; say \$2.00 gold. Their operations were on 202, b 6 3 ous. gold. This required mages of one man, fifty two weeks. Coke, 13 tons; Charcoal 105 bus., Gas 36 2 thousands; acids, 34 tons; chemicals, pots, tuling to which we par with them) gross amt & 140 "12. They add in, waste of gold & 82.3; waite of silver 1,7.12; mean & tear of Plant, £ 20. From all these data, we find it costs them nearly 12 cents per ounce, and mould cost us 1's cents as near as may be, including mastage, I wear of apparatus. J. R. Eckfelds & Synt. Assaya de Opinion on Dr. ellellers proces of refining Gold Rev aug 3/70

United States Assay Office U.S. MINT AUG 6 1870 New York Ang. 5, 1870. RECEIVED! I send herewith Receipt from April 1st to Anne 30th 1870, transferred to the U.S. Treasury, provenant-to Act of July 20 to, 1868. Hould it not be sufficient, hereafter, to notify you of such transfer, so that the 2nd receipt could be forwarded with the bullion accounts to the accounting officer at Mashington, in accordance with instructions in your letter of Nov. Jun 1868 3 Very Respectfully, Hom Oft. Servant, Hon. James Pollock, Tho Collectore Diriclor of the Mint, Superintendent. Philadelphia,

United States Treasury. No. 16 New-York, Aug 4, 1890

Pertify, That Thomas Hellhouse Treasurer this day deposited to the credit of the Treasurer of the United States Tifty five hundred teighty two, 100 Dollars, on account of Esvaelable profit, from april 1st. to Jane 30, 1570, pursuant to ach of July 20, 1868, for which I have signed triplicate receipts.

G. C. 3.154.
S. C. 2,428.10

Add Assistant Treasurer, U. I.

U. S. Assay Office. Conclosing dup. Nect.

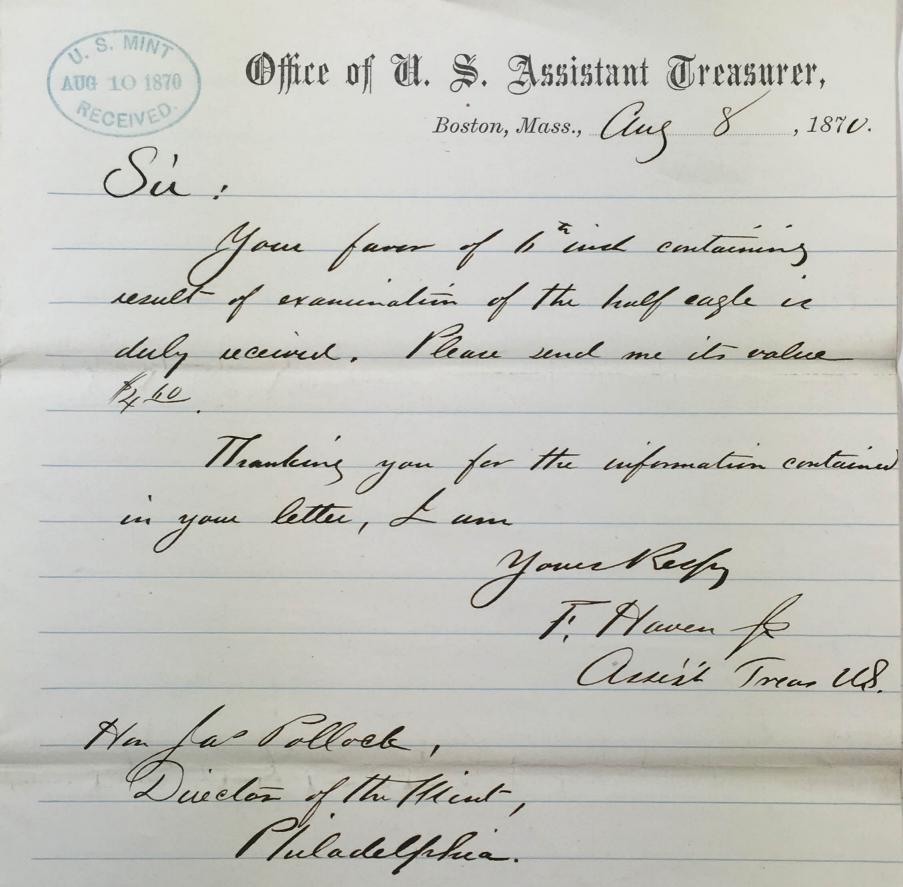
No 16 for \$ 5582.20

transfer of arailable

profit.

AUG 6 1870

RECEIVED



asst head Ev. S.

Regnest, comittance of the Value of 1/2 Engle Sent for Examination,



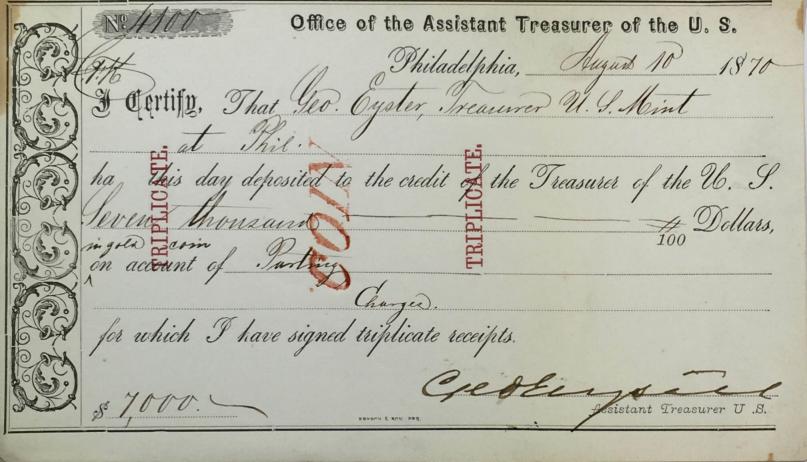
at the United St S. MINT Washington August & 1870 AUG 9 1870 RECEIVED hand you herwith Fransfer Regk on Hosistand France Told Ohiladelphia for Hoo. Will god glease end me sauce amount in thru coul nickel cour · Despitfully yours

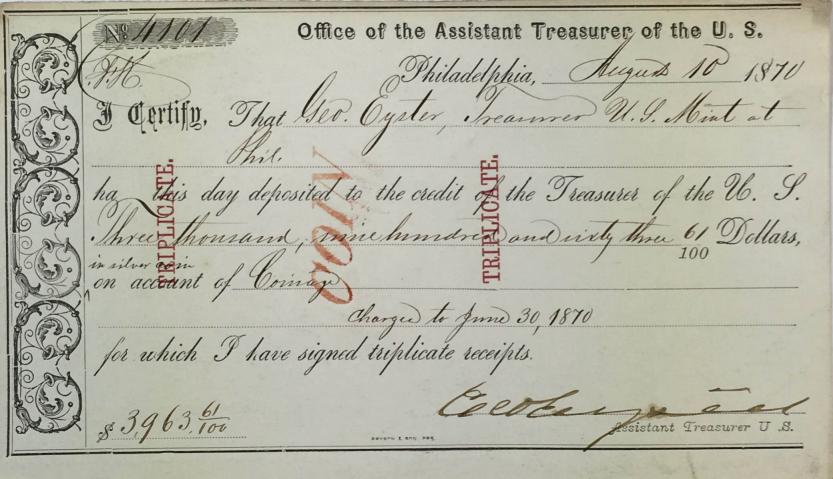
S.P. Juttle asst Bear. W. S. Washington XX.

Mante 1600 mille

AUG 9 1870

RECEIVED:





Office of the Assistant Treasurer of the U.S. Fift Philadelphia, Muy. 10 1870 ha this day deposited to the credit of the Treasurer of the U. S.

Seven thomas wire eighty eight to the Treasurer of the U. S.

in Georgia account of Telair The Seven to the Treasurer of the U. S.

on account of Telair The Seven to the Treasurer of the U. S. for which I have signed triplicate receipts. ellezaill 8 7088.70 Assistant Treasurer U.S.

Office of the Assistant Treasurer of the U.S. Philadelphia, August 10 1870 I Certify, That Ger. Eyster Treaumer U.S. Mint ha this day deposited to the credit of the Treasurer of the U. S. Twenty eight thousand four hundred and forty four 48 Dollars, in gother coin of i /ochanges on coinage for which I have signed triplicate receipts. 8 28 444. 100 Assistant Treasurer U .S.

the Engraver of the Minh is provided with all the necessary information Copies data te of he is not I shall be glad to suffly and, upon authorization from the Director, with ful myself in Communication with him I provided Luiderman with ample data from which I telech a motto for the medal, and presume it is with Il Barber Melean Freman sony truly Nobs Stevens

Office of the Public Tedger,

S. W. COR. SIXTH AND CHESTNUT STS.

GEORGE W. CHILDS, Proprietor.

How fas Pollor .

Philadelphia, Mug 13 1870 Dear Sir In looking over Some papers that thave accumulated in my absence, I find The enclined from Mr. Stevens on the subject - The Baker medal- concerning which I unte you briefly some weeks ago.

I regret that I

am mable to give you M. Stevens address. but can prome it if desired. Very Truly M. M. Hean com. V. McKean
enclosing letter
of Robt. J. Ptevens
in relation to the
Baker medal
aug. 137,1870.

Ru aug 1-13/70

J.S. MINT AUG 17 1870 PECEIVES.

Office of U. S. Assistant Treasurer,

Boston, Mass., Cluzat 15, 1870.

I have the funer to acknowledge receipt to-day of your letter of 12 inch enclosing type in coin.

Respectfully your assist Treas US.

Hom fat Pollock, Director of the Attent, Philadelphia.

assy hear US Boston Mass acting rest of \$460 Value of 1/2 Engle Sent for Examination, AUG 17 1870 PECEIVED!

2. Cristing of the Chrited States, AUG 16 1870 CASHI DIVISION, Washington Dry. 15 = 1800. Heave send me, al your earlies convenience, a few copies of my piroulars from your office, which are now in force, celating to the purchase copper of The various dearminations. Langue peoffully. - Sagimum How Sus Bellock.
Sireator of the Minh, I hillands whim)

Treas. U. S. Washington bolo. Mants copies of Cicular rigila - thing refrenthin of mital coffee cuts 1 Correspondence U.S. Mint. Prauch muits, August 1870, J.S. MINT AUG 16 1870 PECEIVED!



United States Assay Office New York Aug. 15 1870.

I transmit herewith a Statement of the business of the Assay Office for the fiscal year ending Inne 30, 1879, showing \$8,271,256.40 as the amount deposited during that time. Very Prespectfully. Your Off Servant Hon James Pollock The Conferment Description of the Mint Duperintendent.

This adelphia Jenna. N. Y. Assay Office

Graling amal

AUG 17 1870

RECEIVED:

BONDS, SECURITIES, ETC., UNLAWFULLY ACQUIRED AND INVESTMENTS EXCEEDING THE LIMITS PRESCRIBED BY SECTION 5:

AS AMENDED

Description	Par value	Book value	Name directors who, as shown by the ba approved the purchase of these bonds, a quired.
		1	

J.S. MINT M. Y. 17 aug. 1840 (RECEIVED) AUG 18 1870 PECEIVED! Jalfollock Esq Smint
Dear Sir: Director Ul. S. Mint

Dear Sir: Jam in due receifet of your astremed
favor 15 thaist. with order for sundies enclosed,
which have had my attention.
The goods, are nearly all laid act
to be sking, but before sending them, I beg to The goods, are nearly all laid aut
ready for parking, but before sending them, I begeto
make the following remarks, for your consideration:

Wholevide of Calcium fars - I have none less price than

1. Lea - so I sent out them to you at 10 (ea

Propose to put them to you at 10 (ea

Lasseroles #2 - I have none but French, & they are worth Set Porch Erap. Dishes glazed above below - price not put down by you - They sell for 12.50 Plat " Wire -large & small - size not indicated . - price Wash Bottles - do you want them fitted or not?

Jest Lubes Rack - my price usually 1. 25 p day - you order 4day with rack for 1. 25 is there not some mistake - I can give you Gin. Test Jubes for 60 pdg-without rack. Wooden Filter-stands - usual price is 1. Feach.
From ring-stands - 3rings - price is 11. Ea Thave solo at Pord! crucibles - none ever imported so small as 3/pin deam-smallest-is 1. in. - can make up the

lot of seven for \$1.38 For filtering rings - Thave some in Custom House, to be art in a few dazo- Can you wait? Afraduated Cylinders - Hop C.C. I will put in the Hop C.C. at same price -Kentigrade Thermometers Thave both paper glass scale the former a 11. Less price In addition to where remarks, I would say that De levils silver faigest with stopeoch, con goods of thought you might want something of this Kind if you should, my price would be #25 on The schedule, I return to you, as requested, + upon receipt of your reply, I will immediately ship what goods Thave ready, tang others you may name to an addition, among the above-Iremain Ventruly Jenns E1311 Benjamin P. M. M.

80. 19 Em ja

BONDS, SECURITIES, ETC., UNLAWFULLY ACQUIRED AND INVESTMENTS EXCEEDING THE LIMITS PRESCRIBED BY SECTION 5:

AS AMENDED

Description	Par value	Book value	Name directors who, as shown by the be approved the purchase of these bonds, a quired.
			0681426140
			1

SECONDIES, STC., UNLAWFULLY ACQUIRED AND INVESTMENTS EXCEEDING THE LIMITS PRESCRIBED BY SECTION

Book value

Name directors who, as shewn by a suproved the purchase of these boquied,

AUGUST 17 TH 1870

19 Part Place New York Hou James Tollock Derector U. S. Mint Dear Vir Jour favor of 23 wist on reference to De Millers Trocess was duly recewed, and I beg leave to tender my thanks for the kind offer contamid in it. I will communicate its contents to De Miller, but, as he is at a great distance, It may be some time before his reply is recewed. yours respectfully Q. Li Kenwicks

E. S. Removedo New york

efceeft brinden offer to make that of be. Miller's repring process, a mill inform in elletter



AUG 18 1870 19 Park Place, New York

AUG 18 1870 Aug 16th 1870

Aon Ja! Pollock Derector of Me L. Phinh Dear Fir Luice I last had the honor of adelrefoing you, Mr. Zarbett has left with you a statement of the operations with the miller process at the Sidney Mint for the space of one year. This statement, as you have probably noticed, shows a smaller per centage of los in Tilver than the statement for the first Quarter year previously sent to you by me; while in gold is but 22.034103 out of 181, 294 In 3, being only 1/4 ten thousandthe of the quantity of pure gold operated upon. as I have us statement of the cost of refiring in the Me S. Mins for the same period, It is not possible for me to make a comparison (as you can) of the actual cost of refining by the different processes, but, assuming that the los permitted by our law is a fair average of the loss actually incurred by the Mint system of refining, it is clear that the aggregate lop by the Miller Trocep in monetary value of Gold and Tilver combined (as shown by the annual statement of the Sidney mint is greatly less Than the movetary value of gold the lop of Gold and Tilver combined by the process in use at the Mint of the United States. Under such a state of facts permit me to ask whether a sufficient amount of Evidence has not been adduced to warrout the fovernment in Expending the sum of money requisite to test the operation of the miller

proces in the mint with a view to its adoption in case the Experiments prove satisfactory. If whom a full consideration of the matter you and Itwood should come to the conclusion that it would be Expedient to test the hiller Process in the mint, would there be any impropriety in writing me a letter to that affect to be used when making application to the I scretory of the Treasury to authorize the requisite Expenditure. If the above suggested course should not meet your approbation, will you oblige me by suggesting in what manner the matter can be forwarded in case you should deem it expedient to have the process tested. Jours respectfully Of Strowicks

E. S. Kenwick NEW York Miller, proces of anjung gold and Silve. J.S. MINT AUG 18 1870 PECEIVED:

Mint of the Anited States,

Philadelphia, Duby 1 \$1870

340n. James Bollock
Sirector W. S. muit
Sir

In conformity with your request I herewith enclose Statement marked a Exhibiting the amount of Gold and Solvier Deposits, and the amount of Gold, Solver and Base metal comage for the six months ending June 30, 1840.

As you will observe the comage has materially fallen offfrom the presions six (6) months. There are various causes that have united to produce this result. The demand for trackel Copper and Bronze has been checked by the general depression of business throughout the country, and also by the issue of the 15 cent

The diminished comage of gold may I think be attributed principally to two causes. First - the large shipment of Bars instead of Coin, occasioned by the Coinage charge, which is a discrimina tion of 1/2 of one per cent in favor of the former, and

Secondly - by the unauthorized and unlawful System practiced at the New York Assay Office by which pereral millions of dollars in gold Bars that should have been forwarded to the Mint for comage were held as collateral

upon which com was advanced to the owners thereof - SEE Report of Messers Drox and Linderman.

I need hardly say that this proceeding can find no warrant in the instructions furnished from the mint.

The next six months will I confidently expect Exhibit an improvement upon the last.

I am Very respectfully

Your obot sout. Houdon Showden

A. London Snowden, E Chief Coiner ElSelluit Kepnt, ant of Gold and Silver deposits, and Gold, Silver and base metal Comage for Six months Ending Juna 30. 1870. Reelo July 1/70

Halane Bu Laly, N/190 was 1 127.89 f. 112 Artiste 19:158.42 Apoilists

United States Treasury.

Boston fuly 5 18170 I have The pleasure of acknowledgers receipt from you of one pair of Scales for weisfung gold Com - und accompanying weight, Very Keepy Jour Obl Sent and breaks Dieler of the Mint, Iheladelpha ,

7. Morning asst may Ils Boston Mass Has acceived Peale tweights Julyold foit Inly 6/70

Invoice Ho. 20.

Statement of (State Bullion transmitted to the UNITED STATES MINT, for Coinage, pursuant to Act of March, 1855, by W. G. White ad-interin Treasures of the UNITED STATES ASSAY OFFICE. New York, Fuly 8th 1870 BOXES No. CONTAINING BARS. Description. Mixed Coins 938 899 Valefax 1300 GUO 956 891 8952 1992 8962 24 64 899 8962 889= . 60003 0635 897 8905 968 8972 Jan & Bay Coppey 1347 8922 Mix Coins 676 70 50 1576 899 886 Z 1437 Ger Amal 1453 986 9742 OMontara Van X457 135 83 971 Stand MG 1243014-8 129199 Less Comago Nec-Value \$ 23,0 10.21

July 8. 1870 Invie # 20 m. s. a. o. n. M.

Ovensney Department. July 9 th. 1870 To frocure for How 6. 13 Hashburn Minister of the United States at Paris , one of the Medals struck in bronze commemorative of Fresident Frank. Paill thank you to comply with the request and transmit to this Department the Medal asked for with the bill of expenses if any are incurred. Very Respectfully April bontwell. How James Pollock Director of the Mint Philadelphia Pa. Decretary of the Treasury Niladelphia Pa.

Stery neadury Haut a honge medal of President Grant for the American Min -is la (M. Washburne) at Fais.

Rec = July 10= 140

Mother Dollock application from the Freakury for "a Breday, 1, Struck in Bronze commendace of Nesidens Tranty. I rould like the Department to be informed of the fact that Joropeerly speaking be have no Congressional Medal of Lesio int Frank bhich is an exception to a general rule. The Medal me have is one Struck some year before the Presidence, and totes to Major Gent Grant In such case vice you do me the favor to lay this aistinction before the How Director and obtain y prosette his influence. to get an nou for a Congressional Modal for President Grant and I vin Bromin you the utmoss expetion of my poor abitities our institution au round your Thus Marker

MulBarber, Engrave Eldelist Reputs a medal of your Grant Put money Parison Spart - which latter he desire, of propara Rec - July 11=1870

Official Getters From Sec. of Inssury

July 1870

JJE Trensum Department. JUL 26 1870
RECEIVED Your letter of the 11th enetant transmitting a medal Struck in bronze Commemorative of the Dervices of General Grant, was duly received, and a copy of the letter transmitted to Hon & 19. Hashburne Munited of the anited States at Javis, through the State Department. As soon as a refly is recured you will be advised with reference to the disposition of the medal. Wenn Respectfully Service of the Ireasury How James Fallock & Philadelphia Pa &

Story Reasony Acknowledg, receipt of Bring medal of Gust Spant, and a copy of Director's letter Lent Is Minister Wash horns at Paris. Correspondence a. I , mut, Branel Mints July 1870 J.S. MINT JUL 26 1870 RECEIVED!

Russellenthe Pope County arks July 9th 1850 Mr. Sames Polleck Divelor of El. S. Mint-3 Philodiphia 243 Sis. O was warring Some Small Change. @ got- 10.15-4-9505 puis from A ES primes Francis of 208. and he Deriction pro lo grow for The Bronge one (1) 8 law -Henow of you if & can get as little as 1/30 or 30 worth or in Niekle & Bronge of if Swork Sand you the U. S. notes for that. I how you . will Gend thew to me noping to hear from you down am Si Gery Respectfully Jour Obar Servit José Hallufild D. M. July, 1870.

James Pollock Erg Washington July 15/10 JUL 18 1870

PECEIVED:

Sin

Share Supprosed the large amount of Coinage under Napoleen III to have been recoinage mainly It appears that a Mr Fisher of Phila in 1853 through the State Deft, was trying to Collect a claim on France for having Pointed out geologically the Existence of Gold in Senegal in Africa that the Emperor Sent out a large working force and obtained a large ant in Gold Thisher's Claim was \$3,000 ovo on France Are you able to inform me what amt, then what years gold has been coined in France Eu. from Senegal Coinage in France has been from over and also of recoinage. I should like to get at this facts I am Very Respectfully A. Penfield

A. Penfield Mashington De

Hant lo Know and og Franch Coinage of ant of gold prome Serreyal, lepison.

JUL 18 1870

RECEIVED:

MINT OF THE UNITED STATES,

MELTING & REFINING DEPARTMENT,

Philadelphia, 22 July. 1870

Hon. James Pollock.

Director of the U.S. Mint.

Dear Sir.

Continuation of the Experiments in relation to Miller's & lehlorine process for separating gold I silver, I while it seems likely that a valuable process is being developed, yet it does not appear to be sufficiently perfected, for our adoption, or even for trial, because:

1. We are obliged to use a considerable amount of Silver from the new States I Gerritories for refining gold, because such silver contains small quantities of gold. But such silver also contains variable, soften considerable, quantities of arsenic, antimony, to the effect of whose presence in Miller's process is unknown from trial, but we can readily infer that the volatile chlorides of these metals, would induce the loss of both silver

Mint of the United States. Philadelphia, July 22 1870 Hon. James Pollock Director to te Dear Su The Melter & Refiner has just shown us his reply, of this date, to the inquiries respecting Mr. miller's Chlorine Process, as represented by Mr Garbett, lately here. The grounds taken by Mr Booth are forcible, and yet it seems to us not in Keeping with the uniform policy of this mint, to turn away a supposed improved process, of great importance, without even a trial, the Thave always been ready and eager to try any and every thing holding any promise of advantage. By doing so, all our processes, in assaying, melting, refining, coining, and die-engraning, have been kept up to the post line, as is acknowledged by competent foreign judges. at the first blush, this Chlorine Process is a highly scientific, beautiful scheme; and its gradual perfection entitles it still faither to our attention and generous examination.

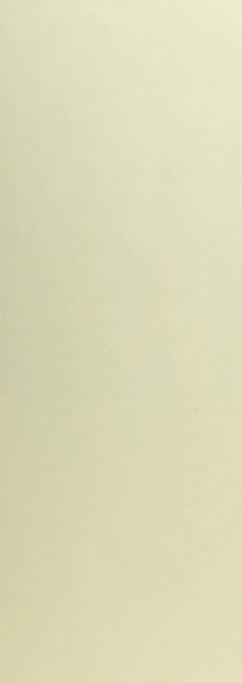
It must be noted, that while we are charging fire cents an ounce for refining or parting most of the gold we get, this process professes to do the same duty for less than one cent and a half. and this includes all mastage of precious metals. It seems to us that Mr Booth's most important objection, the loss that would be visited upon him in wastage, could be easily managed by a Suitable deduction of reight charged, so as to protect him entirely. It would not do to set aside our present process, for it answers some cases where Miller's mould not, so well. But it would be a very neat an angement for operating simply on gold without the bulky addition of selver; and might be used upon occasion, in concumence with the usual methods. They seem to make no account of the bad fumes, or rather to have a way of avoiding them. But the object of this hasty note is to ask an opportunity to examine these papers more deliberately before sending them back, So that we may offer a deliberate opinion. In the meantime it might be well to inquire what bonus the inventor expects, for if it is high, that alone should stop any further inquireg. Scarpertfully, I'M Ecksfilest.

Unother reason for not rejecting this new process too hastely, is the effect it will have if introduced into the S.F. Branch Ment. It would apparently neutralize the legislation lately obtained for the Refining Company, by destroying all competition. We find that the cost of refining is set down at about 1/2 cents per ounce of gold, even while they have to pay & cents afound for muriatec acid, whereas we can get it for 3 cents.

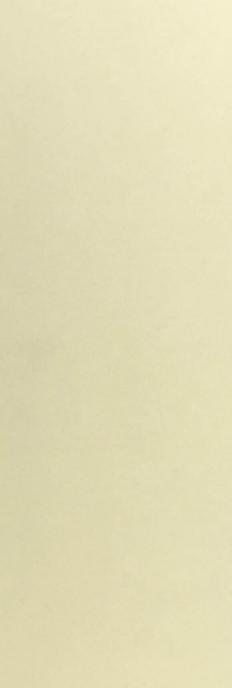
- I gold in Miller's process, beyond what has been yet observed.
- 2. The loss of Silver reported in the last experiments with Miller's process, alsto not much over half of the loss reported in the first, is still too great to warrant our adopting the process, because it exceeds the allow-, ance of wastage allowed by law. Us stated in my former communication, in working gold the results aver most satisfactory with the australian metal, and might perhaps be so with our own, except in the case just referred to (Nº1), but under the U. A. Mint Law, the M. & Refiner is charged with nearly all the silver contained in the gold, of the proportionate loss of silver, to this amount charged, is estimated as lop, and not to the amount of mixed metal (gold & silver). The MAR, would therefore be obliged to make upthe deficiency from his private funds, in working Miller's process. Respectfully yours Sat Booth

J. C. Booth, MAR JR. Eckfeldt, Assays June. DuBois Asst Assays Further repart upm Miller's Refining process. (Red or only de 13'
dute Seps 1/70) Res. Inly 22/70

U.S. MINT GENERAL COPRESPONDENCE 1870/JULY-AUGUST



U.S. MINT GENERAL CORRESPONDENCE 1870/SEPTEMBER-DECEMBER



SEP 21 1870

RECEIVED:

United States Assay Office New York Dept. 20 1870.

Dir. I bransmit herewith a Statement of Deposito" at this Office for the back Friscal Gear, connected in accordance with your request, which & trust will prove salisfactory. I chould be glad to be informed what is the latest date to which the estimates for the Assay Office for the must Fiscal Fear can be deferred with. out fulting you to meonoimence. Very Respectfully. Im Out Servant,

Town Samuel Follock, Thot Content Superintendent.

This Superintendent.

This Content of the Omint 2 Superintendent.

Att Assay Office New York

Return amended
"annual Statement of
deposits."

asks late, there
be send in Estimator for
1872.



Harmington Jana Sept 24 Director W. S. mint Phila . In Enclosed find P.O. money order for five dallars to pay for exami nation de report an Speciman platine um I Sent you the 3 Sept. I received a letter from your dated the 12th sept in Which your stated it proved to be platinum also When refined was. s or 6 dollars grs of pleas acknowledg the receipt of this order I he so trind as to tell me if platimum is of any practical use Cando a person find sale for it redily will much refined will it yeald per org af such I sent your for examineation I what will be the cost of refining pleas tell me this much and I Will be much obliged Respectfuly you Wan Armstrong Farmington

Der order ishwed

Ly Danial Merritt PM

at Harmington

Sowa

there is no doubt about the geals this mine as & know I can aftain large Evanthi, af it if it will prognit cost to much to get it refined I can find Sale for it Respectfuly Win Armstrong Harmington

Hin Armstrong Farming ton Journ

> Enclosing & 5. for report on specimen of platinum one. Le

> > Rei Seft 29/70

19 Part Place, New York Sept 19 8 7870 Hou. Jas. Pollock Director U. S. Mint Dear Vir four acceptable letter received and has been forwarded to Froj huller. mafortimately, hu. Garbet has gone to Suffand and Proj. Phuller has us one in this country who is skilled in the process. I hope to hear from him on the subject speedily, as your previous letter was duly forwarded to him

minediately after its receipt. Respectfully iller. Sist. E. H. Fruricks E. S. Removed O NEW You10

Hay forwarded the
Whitelong letter of the
15th tust about
ellithis Chloride
proces, Is her Mitthe

SEP 20 1870
PECEIVED:

S.S. MINT SEP 15 1870 New York Sept-14 1870 RECEIVED: Mor Janus Pallock Dear Singuiries have been made of one as to whether there are responsible parties in this country, who manufacture cein for the sucole Greign gremments. L'am mable lo auswer them, and In Joney thinks that there have been such parties, but he thinks they no lenger exist. on this print? If so it will be grutefully apprecialed.

Tery Thely provs

Itvalien by localin

Mater, Sylveylin a S. assay office New York

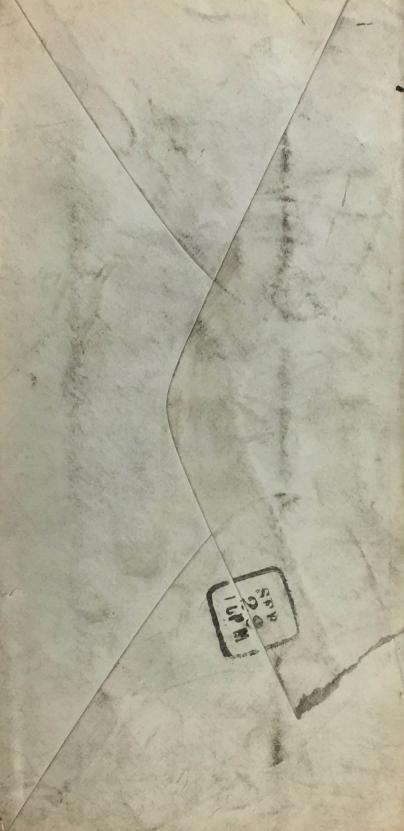
Inguing for man - afacturer, of fairly Coin.



New York dept 14th 1870 James Pollock Esq Your favor of the 12th inst with a warrant has been received, Enclosed you will find warrant receipted. 1 & The medal and balance of our bill you will please send by mail and oblige Yours Very Kespect Bockes &

Becker & Sons New yorke Return moment for fil. to ge blower 13 receipted.

Estimates -dise



ESTIMATES OF APPROPRIATIONS required for the service of the fiscal year ending June 30, 1872, by the United States Assay, Office at New York. Date of acts, resolutions, or treaties authorizing or providing for the expenditures.

References to Statutes Estimated amount which will be required for each detailed object of expenditure.

Total amount to be appropriated under each head of appropriation.

Amount appropriated for the current fiscal year ending June 30, 1871. GENERAL OBJECT. DETAILED OBJECTS OF EXPENDITURE AND EXPLANATIONS. (Title of Appropriation.) Dalarice! Outwintendent Mch. 3.1853 10 212 10 \$ 4500 00 Assayer & Meller & Refiner @ \$3000 each 600000 200000 Defortes Opeasurer 4500 00 Toro bluko @ \$2,500 each 500000 One Colerke do 2000 00 One Clerke 190000 One Clerk 180000 \$27 700 00 Hages of Bookmen Hages of Bookmen Contingent Coopenes Miscellanens items, incidentals o repairs 5000000 5000000

M. O. Assay Office. Mew Yorks. Dept. 29th, 1870. This C. Acton, Superintendent. Estimates of Appropriations required for the support of the Office, for the fiscal year ending of me 30 - 1872 SEP 29 1870

PECEIVED:

United States Assay Office New York Sept. 291870.

Sir:

Suspectfully submit the enclosed Schedule of Appropriations required for the support of this Office, for the fiscal year ending Imme 30,1873.

The amounts asked for as you will observe, are the same as those finally appropriated for the current year, viz.

For Salaries of Officers of blerks, \$27.700

" Hages of Workmen, 68.000

" Insidental of Contingent Engences, 50,000

\$145.700

In preparing these estimates, I have endeavoid to conform, as strictly as possible, to the instructions of the Department, not to exceed the amounts actually required. The sums asked for are, in my judgment, no more than sufficient to much the expenses of the Office for

the coming fiscal year. In explanation of the figures in the last column of the Schedule - Amount appropriated for the current fiscal year ending June 30, 1871" I would state that the original appropriation, made July 12 m 1870, stood as follows: Dalanis of Officers & Clarks \$ 25,700 Magus of Morkmen 40,000 Incidental o bentingent Expenses. 50,000 \$115.700 On my earnest representation of its atter madequacy, this ant ones increased, July 15th, 1870, by \$ 30,000. apprortioned as follows: Salaries of Officers & Clisto, \$ 2,000 Mages of Morkmen. 28,000 \$30,000 \$ 145,700 Making the total appropriations stand as in the table first given. Very Respectfully. En. James Pollock, 2 Jany Oft. Servant. hotto Hoten Director of the Mint. I hot SuperIntendent. N. Y. Assay Office

Landmotting of Explaining armal Estimates for 1871-72



S. MINT SEP 13 1870

Treasury of the United States, Washington, September 121, 1870.

I have referred your letter of the 10th instart inclosing copies of correspondence between yourself and the assistant Freasurer U.S. at Boston, Mass., concerning a spurious fire dollar gold kiece, and suggesting that it might be well for the making Department to take some steps to find out where these dangerous imitations are from " to the How. the Solicitor of the Freakung, who has charge of all matters pertaining to the detection and arrest of counterfeiters of United States

Ston. Jas. Pollock, Swittle Director of the Mink, Asst. Freueuver US.

Philadelphia,

Asst heas. U.S. Markington Del.

Has cofined the
Boston Spring

gold com to the
Solicitor of the
Procespondence

N. D., Mint

also of

Branch Mints

September 1870.



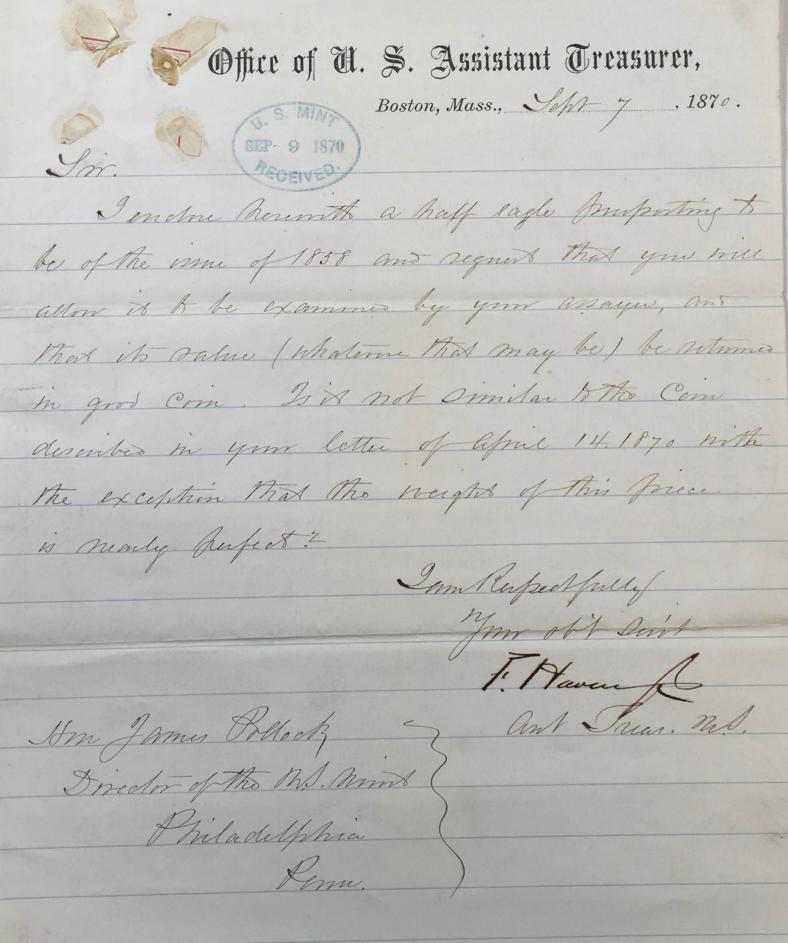


Treasury Department.
Comptroller's Office.
Sep: 10th 1870

Hon: James Pollock, Director U. S. Mint, Philadelphia,

Fir: You are requested to furnish this office with two copies of the Pamphlet containing the mint Laws and Regulations.

Very respectfully, P.M. Daylin Comptroller. R. M. Jaylor 19 Comptette y the making land Wants Copies of Regulations. J. S. MINA SEP 12 1870 PECEIVED:



asst heas. U.S. 13 osta, Mass.

Encloses /2 Englis for Examination.



Note to the Ductor -I would puffert the propriety of sending to the Treas' Dept. a copy of this letter to Treas? Haven of Boston. If the Dept has special agents, they cannot be better employed, might well be at nock to find out where these dangerous imitations Come from; whether made abroad, or in some of our button-factories, or petty medal-makers. He dies are well cut, this not fac-similes. 20

Harmington Sowa Sept 300 Philadelphia Pan Dear Sir Juclosed find a Small pacage of mineral Which I think from the best infermation I can get is Platinum as there is no one in this paid of the cerentry that knows any thing assaying metals of this kind I send it to you to get the line Charature of it What & want is to know certain. What it is I its realise if any por & know where there is a vary rich mine of it in the state of California which will yeald large Quantities of it, if it is not against the railes of the mint I you will ollige me by giving the desired information and it I hould be of any value I will may you well for yours trouble, and if pleas returnit to Wir Armstrong

Mu frustring Farming the Sends Specimen of California pla-- timme for Ep-· an en alend Red Sept 6/20

This is platinum, in the form in which it is usually found. When purified it is much five or six dollars an

I Send envely & Stamp to retirm Jours Respectfuly Um Armstrong Harmington fora form it is always found

OFFICE OF THE U.S. ASSISTANT TREASURER. ORIGINAL MEW Unk, Och 29, 1870. I Certify, That Thos Hillhouse, Treasure May office new the Credit of the Treasurer of the United ars, on account of available furfit, from buly 1, 40 1870, pursuant to act of my 20, 1868 signed daplicate receipts. Assistant Treasurer U. S.

United States Assay Office New York Och 311870. Receipt No 70 for \$ 9,575 46 Quaila-ble Profils" from July 1 to Dept. 30, 1870, transferred to the S. Treasury. promount to act of July 20, 1868. Very Respectfully, In James Follock. Despinistent.
Dirichor of the Abrit.
That Ophiladelphia
Sum. a

U. D. Assay Office, New York, Oct. 3 1,1870 Thos b. Actor. Buper intendent. Transomitting Certificate
So 70 of asst. For for available profile from July 1 6 Sept. 30. 1870





HENRY TROEMNER,

MANUFACTURER OF

SCALES, WEIGHTS, &C.,

710 MARKET STREET.



Philadelphia, ON 29

1870

Hon Dames Tolevek Dine Elon U. S. mint Phil a del

Dean dir

we enclose herwith invoices for

we grea Balance formanded to Baltimore

will you please of fire your signature to

whe same - and tell on how to address

- he in voices - also by what waite you

where mo to ship the Balance.

Jume on Bound & Sunder of the sunder of the

Hung Fromher

Enclosing bite for God asst Tras U.S. Baltimore Dr.

Ru oct. 29/70

M

Bought of HENRY TROEMNER, MANUFACTURER OF SCALES AND WEIGHTS,

MARKET

STREET. Bavis & Pennypacker, Steam Power Job Printers, No. 23 South Tenth Street. Une Gold Balance & Wrights Three Cares tion 200 (90 Shirted O of 29 le Baltimore

Mint of the United States, MELTING AND REFINING DEPARTMENT. Philadelphia, 31 et Oct _ 1870 Hon James Pollock Liector U.S. Mint We have on hand, in rounde) numbers 20.918 lbs of Nicket Hor your information it may be Stated that this will make 83. 672 lb, of 5 & metal, more than sufficient for the ifene of \$ 375.000 in value. & equal at present demand, to 5 yearsupply the amount of 20.918 lb, Nickel es thus make up. ant. oferi: in Cents on hand 5.320 lb, in stock un used from last Munchets on hand 498 sin Very Respectfully 20.918 in M. B. Boydon for mext. Letter from
Melter and Refiner
on quantity of
Nickel on hand at
ade.

Oct. 312+1870.

33.56 Oversney Department. Washington. Och 26 et 1840. I have received your letter of the 24th operations of the mint and branches for the fiscal year ending fune 30, 1870. Very Respectfully Aflor I Commette Hecretary of Treasury. Hon James Pollock
Director of the Brink:
Shiladelphia
Penn

Stoy heasury acknowledging rest of Director's annal report U.S. MINT 00T 27 1870 RECEIVED.

Office of the Assistant Treasurer of the U.S. Philadelphia, Cet. 25 1870 ha this day deposited to the credit of the Treasurer of the U. S. on account of Profits on 12 & am I sent price (aving) for which I have signed triplicate receipts. Assistant Treasurer U.S.

Office U. S. Assistant Treasurer, Baltimore, Oct - 124, 1871. Dear Sir I have written to die ornot. - will in retation to a pair of gold seale for this office. urging upon him the great need we had for them. He replied that mi argust last he had given instructions to you the have a fair prepared for me. Whill you be hind enough Es informe One when I may exped- Them I demil- me also As wife on you how much we are inconvenienced by the toento of them & to ark you to heal, Them completed & send-to un an Loon as possible (hery Trespectfully Hon Fas. h. Ishook Drudor og Amil. Thelen John Regley

Mr. Nigley assi her. I. V. Baltimore, led. Enquis about pour souls, about by Sie'ng heading. J.S. MINT OUT 25 1870 RECEIVED!

J.S. MINT Treasury Department, OCT 21 1870 OFFICE OF SUPERVISING ARCHITECT, RECEIVED! Cetaler 20th, 1876. I have to advice you that a bill in favor of the U.S. Wind at Philadelphia for \$14000, amount due on of this Department, as per expres receipt attached, has been this day referred for examination, settlement and remittance in silver coin of the amount named, a droft for which will probably mach you in a few days. Very Respectfully Supervising architects James Pollock. Eng. Doicetor U. S. Mints. Philadelphia, Ba.

A.13. Mullett Sup. Architect Washington D. draft \$ 140. in Situe Coin for 100 04 granulatet Selve Set Photographe Traing deft with he service few duys.



Mint of the United States,

MELTING AND REFINING DEPARTMENT.

Philadelphia, 20. Oct. 1870

Hou. James Pollock Director Us S. Mint. Dear Sir,

There are a few points in the letter of the Suplot his less. Off. that may perhaps be noted for your consideration.

1. Me mason says that he examined all the bullion sent per Invoice 26, and believed it tobe suitable for coinage.

In the first place, the Assayes is the only official judge of quality by his asay, especially as to the content of sulphur, Jin, Sead, antimony, te. because the eye will not detect them, and 2. and the mere fact of toughness apparent to the eye, is not a sufficient indication of toughness in volling ingots for

soin, because the addition of the requisite

copper for coin may render an appar-

ently tough silver, quite hard & brittle. a very small amount of sulphur or antimony, te is sufficient for this effect, my impression is less than one per cent. again, 5 pr. et lead in silver, which is quite common, makes The comer reject the ingots as un suitable. 3. All such metal rect from the Ufs. Off. I toughen by acid at present, at a cost of 2203 ets. per ox., from which the depositor has escaped at the cost of the U.S. for =. Very truly yours Late Booth more

Jas. C. Booth.

antimorey to issufficient the

my uniforefreen es less there for

Reply to Suft actoris Explanation of imporities in the Situe from N. 4. assay Office.



United States Assay Office S.S. MINT New York Oct. 191870. 00T 20 1870 PECEIVED: Um communication of the 12 minst., enclosing a copy of a note from Professor Booth in regard to Invoice Ao 26, has been received. I referred your letter, with the enclosure, to eller. ellason, Meller , Refmer, who stated in regard to it-that he evanimed with care all the bullion of which complaint is made, & believed it to be good tough metal, Suitable for comage; I he was much burfinsed that Trofessor Booth should have found it othermse. Capacial panis will be taken that no cause for complaint of this kind shall hereafter be given. An evanination of the Treasur. ero chulo choro that a longhening charge oras made to depositoro infrom

the following deposito, two of which mere remelied: 10.19 561 _ Tonghuning 1 & por 03. \$10.19 578 - " 122 " " 5.04 621 - " 120 " - 7.33 As, in Mr. Mason's judgment, all the metal cent was sufficiently longh for comage, the ellint was not ordited with this amount, since it was not found to be so, the proper credit will he given when the must invoice is dispatched. They Respectfully, Tow. Sames Pollock, I Duperintendent.

Dirictor of the ellint;

Thiladelphia, I genn?

N. Y. Assay Office Keply & Me + K Complaints of impure silve Sent & Me Munt from the assay 10 fice. OUT 20 1879 PECEINED!



Creasury Zepartment,

October, 15, 1870.

di;

Please forward to this Department without delay the annual report of the operations of the u. S. mink at Phila and the various branch muits and assay offices under your control so that it may be put into the hands of the Congressional Venter by the 1th pury, as required by daw. James Pollet Egg Very Respectfully Divotor of Mich I. & Have by Philada. Penne Assistant Checkeny. asst Secy Breasury Mant annal Report, for the public printes.

(Copy)

American Nickel Horke Camden A. S. Oct 14. 1870

George Eyster Esq Treasure U.S. Mint Dear Sir

You are already aware that the frier of nickel is rising and that the metal is now Searcer than usual in Europe. It is in fact for the first time in several years recovering from the artificial depression to which the English forced it, and will probably now recover its normal frice.

Having offered to several of my customers to give them a supply at the price of \$ 1.30 gold, I think proper to make the same offer through you to the Mint, for any reasonable quantity, not however urging you to buy, nor pretending to know what the future demands of the mint may be, but merely to afford you the option of taking in a Stock at the above named finice if you so desire

This price is lower than English can now be had for, and I shall of course in case you do not think expedient now to purchase, always be prepared to deal with you on terms favorable to the Government, so long as I continue in the business. Your truly (Signed) South Whaton

Philadelphia
October 28. 1870
Respectfully referred to
the Director of the Mint
for his suggestions
(signed) her Eyster
Treasurer

2 Urrasarry of the Chrited States, CASH DIVISION, Washington Oct. 13 1870. I enolose my krausfer draft on Philadelphia, Mr. 120, in your favor, for six hundred (600.4) dollars, for which please send one 3 makel com Ten ceasestfully, 3 Quittle W. Wollrok Director ded Mins, Philadelphia,

Am L.L. Juttle assir hear W.S. Washington Del

Orders \$600. 3 & nikel com.



Wint of the United States,

MELTING AND REFINING DEPARTMENT.

Philadelphia, 7 Oct. 1870
How. James Pollock Director W. D. Mint
Director U.S. Mint
Dear Lir,
I regret that I must
continue to Report that the Silver rec'
from the n.y. aspay office, per Invoice
Nº 26 contains the following amounts
of metal containing tin I sulphur.
Je 536 contains tin, weight 813.55 or
" 578 " " 1000.50 "
620 " " 920.15"
653 " " 1010.85
621 " 486.80
4231.85 "
" 561 " sulphur, " 1016.05" " 484,800,3" " about 300.00 "
484,800,3 about 300.00 "
1316.05
Total of both = 5547.90 "

I cannot find that any special cost of Youghening has been allowed on the N.y. Invoice, but I may state that I have been obliged to toughen all the above by solution Sprecipitation at a cost of about 3 cts. pr. ox. grofs; as follows 5547.90@3ets. = \$166.43% Either the apay office has charged this to depositors, of jorgotten to give the muit the bredet por the same; - or they have not charged it, so that they have paid the above \$ 166.00 to depositors, which They were not entitled to receive, and have caused the munt to remburse There for the outlay. Jate Booth m. O.R.

James C. Booth Complant Silver Invoice No. 26.
eftem N. y. assay Office white will it was hard in required in " the lead of the services and popular breed from the last of the police of the same are a sufficient to some part Rei Ost 7/70



Office of U. S. Assistant Treasurer,

Boston, Mass., Oct 4 , 1870.

Su:

Please find herewith a five centmickel coin of semankable Thumess
but otherwise apparently good. Is the
coin of genuine issue!

Jour very truly T. Haven for Assich Treas US.

Him James Pollock Director of the Mich Phaladelphia. M. Haven fr asst neas. U.S. Boston mass

Enclosing 5 d mikel for Epamin --alino



United States Assay Office J.S. MINA 00T 5 1870 New York Oct. 4 1870. PECEIVED! In accordance with instructions contained in your letter of april 2, 1870, send for your information the following list of changes in the pay- solls of this Office: Position. Date. Mame. Resigned Some 11,1870. Carl Schully Ast. Assayer Duid aug. 4, " Jeter M. Stile Congmen Removed * " 31, " A. Muclay Bullion Clish appointed Oct. 1, " J. Bugen Messenger. Phillip Consigna Congineer * Approved by the Secretary Inly 29th 1870 How Sames Tollock. Jem Got. Semant, Director of the climit. Thos C. Noton Philadelphia. Supermitendent. M. S. Array Office.

Areabook,
Och 4.1870.

Thos 6. Action.

Superintendant.

List of changes in

Assay Office Pay-rolls.





CIRCULAR.

Treasury Department,

GM.S. Domin

October 3, 1870.

To all Officers, Clerks, and other Employes under the direction of the Secretary of the Treasury:

The attention of the Department having been called to the fact that much of the correspondence of the various offices connected therewith is written with volatile and perishable inks, it is hereby ordered that from the date of the receipt of this order none but the following inks be used:

COPYING INKS.

Arnold's Copying Ink. Maynard & Noyes Copying Ink. French Copying Ink, "Encre A, Copier B."

WRITING FLUIDS AND INKS.

Arnold's Writing Fluid.

Maynard & Noyes Writing Ink, black.

Thaddeus Davids & Co.'s Writing Ink, black.

Thaddeus Davids & Co.'s Writing Ink, blue.

Carter's Combined Copying Ink and Writing Fluid.

CARMINE.

Thaddeus Davids & Co.'s. Meyers.

Secretary of the Treasury.

SELY Reasury Circular, pre · Varibing the Kinds & Into To be used. J.S. MINT NOV 10 1870 RECEIVED!

Treasury Department, Rec-October 14th , 1870. I would thank you to furnish for the use of this Department one hundred ounces (100 oz.) granulated silver, which you will please forward to L. E. Walker, Photographer, U.S. Treasury Digartment. Very Respectfully Secretary of the Treasury James Rollock, Eige director M. S. mint. Philadelphia

Stiy Readury Mants 100 025. Grave-alated Silver, for L. E. Walker, Photographer Treasing Defit Red Oct. 15/70

Mint of the United States,

MELTING AND REFINING DEPARTMENT.

Philadelphia, 17. Oct. 1870

Ve. D. Greasury Dept.

Jo U. D. Mint, Dr

So 100 ounces of Pure Lilver

@ 1000 na. fine, @\$1.40 =\$140.00

Lat C Booth

M. 4. R.:

MANUFACTU BANK,

CHARTERED BY STATE AUTHORITY.

CAPITAL, \$75,000.00.

Moline, Ills., for 28th 1870, Jas Pallock En Philadelphia Penn

Dear Sir:

He have in ourhands a quantity of Fold Dust which we desire to dispose, of and would like to Know the Ud minh regulation in regard to ohipment, comage tota also whether it can on left in your hands subject to our orders, Vor whether at could know a droft for Querrency value, early reply solicited Very resplyately A Homemora

Sent a Cercular

Die 1.1870

C. L. Alemenway -

Man faction Bh.
Me line
Sell
No 28, 1840

Wants to dispose of lot of gold dust

Avn. Jas. Pollock Dérector M. L. Mint, Philadelphia Dear dur I'mée my last letter to you on the subject of hillers Chlorine gas Proces for Refining Gold, I have been notified that Dr. Miller, the inventor, is dead, the death having recured last mouth while he was attruding the raceting of the British association as Liverpool. as it is unpossible at present to say what disposition will be made of his personal property, I am not at prefent prepared to say whether four proposal respecting the testing of the process can be accepted or not. It may be some time before the Executor or administrator is able, to is in position to act in this matter and the question arises whether it would

not be well to apply to the Tresetary of the I reasury to authorize the Expenditure of the sum necessary to test the process in the mint. If he should do this, you could have the tests made at once, and the papers which were put into my hands by Da miller is request, are sufficient to Enable the professional gentlemen you have in the mint to test the process without difficulty. You will oblige me by giving me your views on this subject. Jours respectfully E. Li Kruwick I I may say that shortly before his death Dr. Miller had deut to his brother at the Tydrey hint to arrange for a visit to this country for the purpose of making the trials at the hims, but the death of all meller has stopped all proceedings.

maser. 14.1870, ses peccipt for expecient how in Thur days Divice, The by not being delivered Irequested the Supt. this morning to Send to the hopen of fice to ascertain the laure of delay & leaned that the box gulaning the Keights love forhanded france tou God by Steamer which With duckow on 27 thoust a suppore Upon intended that the box should be formarted overland touly callyone attention & the matter in order that you may

d of the hai crown stave, with matters meri that I edmalle a critical Examination of the theighty used mi the Ph. Mist & & cannot dozo make the Meight, Sent h, Mon me recent here. The practice of filing fock com, is carried ore here low considerable Extent, the south Eagle of 1870 hening generally Reliated for that purpose. They moster is more we the hund of the police debolives tuplaint anests anhohed for Reshelfull form

Standard may and by lait. Reports play of gold Com in California.

How June, Tollook Sunder 16.0.9 . Thelas

Smeidoring this thepolice relictions have mide Jound a quantity of pormi huch they wer possing off

J. Edwin Conant & Co., Rail Road Contractors. No.33 Wall Street. New York MV, 25th 1870 Hon. James Pollyck. Director of the Mint Philadelphia Dear Sh. luclased you will find a letter from In J. Torrey of the W State Assay Office Mak in regard to a quantity of thekel (Sweedish) which I have for sale and Which the Dr has had the Kindness to assay for me - and formed buy prove and free from armic and in a Condition to be used for the purposes for which you regime it & Maes. Snowden Jonner Director of W.S. minh used a considerable quantity of the Nickel from this

mie Some years Since. and was rung much pleased, with it and the minh would probably have Continued to use this Nickel up to this time if it could have him oftamind but the mine decreased in product and the parties Concelled with absorbed the whole product -The Imme has honew now your into new hands who have enlarged the works and engagements might now possibly be made for a conwere made inmediately as their is a strong demand for this quality of hicker in Europe - and this mofinitors have mitter out to how this avoice of 1430, Ess getuned to them if not disposed of unwhally ne have fund the price of this lot at 80 ets for fromde Gold nhich is

my low- simply to how the mint try it - and if you nould like Fmake arrangement for the future I will try and su what can be dome much the proprietors and arrange Than sent with this letter a small box of the Nickel as such tous - and in the box a Small price of Nickel milled by De Toney at the office have Our answer as early as con nimet sull much oblige Mus Musy for ABailey
33. Wall St- as above -

Sos ABailey New York

Offers to sell a lot of Swed is to Mind.

Rec Nov. 26.

Mint of the United States,

MELTING AND REFINING DEPARTMENT.

Philadelphia, -30. Nov. 1870

Hon. James Pollock Director, U.S. Mint

pound more.

Dear Lir,

The Sample of Swedish mickel resembles that pormerly purchased in small quantities by the mint from Mr aufermann, the Jwedish Consul. We found it good knough for use, but not equal to the american, English or Jerman (best quality).) It fell short in procentage of nickel of the quantity reported in the Iwedish analysis, so that we paid for it by the analysis of nickel Cent-metal, made from it. It makes lettle defference, however, what the quality may be, we have so many years stock ofnickel on hand, that I would regard as the extreme of mercantele folly for us to purchase a single

Very touty yours

W. S. Assay Office New York Nov 21. + 1896 Hon. James Pollock Director of the mint My dear Sir -A friend of nine Mr. Joseph Bailey, has a quantity of an alloy of Michel Sopper, (61.3 nichel & 37.5 Copper - the remainder Iron" - The quantity of the alloy is 12430 the. I toto him that he perhaps, Could dispose of it at the mint, & know you will que his application your attention. He is a gentleman of storting worth, whom I have known for a long time Your of freid Is hu Jonney

Ithace Jouphen Go of y Jas Follock By.

Jas Follock By.

Door Fri Jams of Nov. 15th Jo.

is at hand. Blean allow me in defending may on a gertions to say a refly to yours, It Mat Congress with do just what you please. Hit is not in favor nath Caragrafo, it will be because the ment, is carting cold vater on the progress of events for a new currency, Congress is last a took, not a perser. my to ment do just what you work arriccemthree cent is a real & convenent coin orage & thick enough for a cent. The set prece anath not to be the other than the twee cent pace. To your gra What a lange forts

S. V. Parker Ithica ny. nov. 21/70 on change of the base coinage

Arrio

The state of the s

MON 10 1870) Hendricks Brothers, BOX 10 POST OFFICE. New York / Who 9 1870 Auces I ollrok Cog Director mint of the U.S. Sleav fire Iny of the 8th with at hand and Contents noted. Quelised he hand you receipted boncher as requested, and would reply in regard to mode of paymus that a check on draft by mail will be heefeelly sates factory, and umanis Melledich Mithus

Hendricky Brothers

Return manach duly assifted, for \$469.43 Som From Copper



Rue Nor 9/70 Ithaca Dompkins bo Ary Ar. 8th 1870. Juft. n. 3. mint. I hetadel hia da. Dear In! I mish to ask you, who not get Congres to authorise a change in comage as follows, It. Not the copper bedropped out of the cent. Or in other words that the Cent be maded the same wetal as the three cont pieces vos out except quitte Hey shall be a bille Ahomor, but about the size of the prosent there can't prece. I'm that the Sim cent piece be changed so as to be as pins wital as the More continues

what all antiqualed odeas, Vertainly we can have a vers teh in comage. As to bragger, it will care by man onggut.
Dan het a private eiligen,
get Dan for probles in de
Margo Nerfectfeler
d f 3 anha 120 m 10 -1870 Anggest whomember S. J. Parter No.

Creasury Department, November 5, 1870. dir: Souchose herewith Check Ho. 1498 drawn by Bushed Birch a disbursing clerk of this Department, in your favor upon the Es. Assistant Freasurer of New york for \$656.29. in payment of you bill of the 1st instant for furnishing the US. asst. Freasurer at Baltimore with a Gold Balance", Very respectfully D. H. Darlley) Henry Troenener, Esq. Acting Secretary, 710 Market Street

(Care of the Direction of the nint)

J. The Startley acting Social of me massing

Henry Frommer for feary Frommer for great Seals, for asst meas. Us Baltiman, elld.

Rec = Nov 7. 1870

Mint of the United States. Philadelphia, Nov. 7. 1810 KEE' of Stan James Pollock Director of the Mint, Check to My orden Ato. 1498, from Bushows Brick, Washing clark to Com the Asst. Fras. U.S. at SEW Make for Six humbres offity six 100 Dollar (\$656 700) transmitted 25 the Director of me by Amy. Th Startley, Ading Seculary q the trees my, under date of Nov. 5.1870, en payt of my like for a pain asst trues up. Baltimon, Med, Jenry Troumers Philadelphia Pa

Mint of the United States. Philadelphia, Nov. 10 1870 Geo. Eyster Eeg. Treas. W. S. mint Dear Sir In reply to the note of Mr. Athanton of Oct. 14th wet., and referred to me by you Oct. 28th 1870, I have to say that we have now on hand, as reported to me by the proper officers of the ment, over twenty thousand pounds (20.000) or ten (10) tons of nickel; a quantity sufficient, at present rate of demand and consumption, for nearly five years supply. It would not be advisable to morease this quantity. When required, the american nickel should be purchased in preference to the foreign article. yours Respectfully Director D. 1106 W.1 1871 M. S. mint A.or. 1 st/70. Director h Smit Refer to the puche Theed for filing Dept. 19n 1871 Ile & check

Blank No. 1.

THE WESTERN UNION TELEGRAPH COMPANY

The rules of this Company require that all messages received for transmission, shall be written on the message blanks of the Company, under and subject to the conditions printed thereon, which conditions have been agreed to by the sender of the following message.

the following message.
THOS. T. ECKERT, Gen'l Sup't, WILLIAM ORTON, Pres't, New York.
NEW YORK.
Dated Virginia- nev. Dec 30 1/2 1870
Received at
Jo Sov James Vollock
Received at James Pollock 7. Jov James Pollock 1934 Race St 100 de colore
o of a same of the
does the de flacen barson
does the le stamped on learson the values stamped on learson mint-unparted have will othe mint-unparted have will other
mint unparted Nant receive them American minto receive them
mints receive
American without reason
American mints ruthout reassay so stamped without reassay
Please lelegraper. Leo.
Please telegraph. Betterman & leo.
30/ collect-15x.

Bitterman 160 Originia Nev

Does the Good quarantu the value stamped on Unpartia bair, IA the Units.

Ree d Dee 31, 1870

Direct Wires.

Med afsay Office New York Dec. 31st 1870 Thos C. Actor Esq Superintendent Lear Sir

is Submitted for your Consideration, and, if approved, for the proper action to Secure its adoption.

At has been Carefully prepared after Close Watchfulness and Calculation of Cost of the various operations; and, though it reduces some of the present charges more than one half, they are possibly still too high if the Cost of experimental trials is only Considered, without regard to incidental expenses, in view of the law, which requires them to be adjusted from time to time so as not to exceed" the "actual expense".

By this reduction of Charges, the owners of bullion, and the mining interests generally, may now chare directly (as every citizen has hitherto and will still share indirectly) in the benefit resulting from the improvements introduced in the separating and refining operations in this department.

As you are aware, a further change has been effected during the year, by the almost entire substitution of the use of sulphuric acid for that of ritric acid.

The two improvements hitherto reported, by which a saving of about Thirty Thousand Sollars (\$30000.) In amum resulted, had no objectionable features; every part of the

process was emproved by them. - By the last Change.

the lator is somewhat encreased preliminary operations are needed on Some kinds of bullion, and traces of gold are aft to be left in the Selver; - nevertheless, the additional Laving of expense will be about Ten Thousand Dollars (\$10000.) for annum. The table of charges is lessened in Lize, and Somewhat semplified in form. He provision in it for returning in large bars the Lame metal as deposited, at a moderate charge, is in response to an application from bulleon owners that seems reasonable, Hoping that the reduction of Charges, herewith Luggested and Recommended, May be approved, I am Respectfully yours, Andi Mason melter Mefener

Table of Charges for Refining to in the United States apay Office, new York. For Separating gold Hilver bullion, (when the value of each metal is one dollar over charges). Cont 4 700 m (or over) gold - 22 & pr ounce groß " 450 " to 6992 m " -- 2 & ", ", For Refining gold bullion (Copperalloy) the Charges are the Same as for Separating, except when coin is returned, they are only on the amount required to Raise the whole to Standard. For making Jene Bard from Separated or refined gold - 5 of for hundred dollars " " Lelver - - Et prounce For Refining Relier Bullion (and making Fine Bars), cout 3 980 on (or over) Delver - - 2 & por ounce großs " 950 .. to 9792m " --- 1 & " " " lefothen 950 " " --- 12 & " " For Refining Lelver Bullion (to return Coin), Cout I lefother goo no Silver - - 12 & prounce on the amount required to raise the whole to standard For making Standard Bard _ 50 & for hundred dollars. For Returning the Lame metal addeposited, in large bars - 3 & prounce groß-For making gold or Selver bars of a special fineness, otherwise than above ; and for Separating or refining When other alloy than Copper is in the bullion Rendoning the expense greater). Et to 3 & prounce groß en addition to the foregoing later.

United States Assay Office New York Dec. 31 1870. Dir. I send enclosed a communication addressed to me by Mr. Mason, our Meller & Refiner, in regard to certain reductions in the charges upon bullion deposited at this Office, which he believes, after careful evofor inent, can safely be made for the bene-fit of depositors. The table anneced will show the changes proposed. I respectfully ask your attention to the letter & accompanying schedule, & would be glad to hear from you in regard to them as early as convenient. They Respectfully. Low James Pollock, I Superintendent.

Dirichter of the Mint, 2

Philadelphia

U.S. Assay Office New York Dec 31, 1870 Relation to reduction of Bullion Charges at the Assay Office Reed Sang 2, 1871

MINT OF THE UNITED STATES,

MELTING & REFINING DEPARTMENT,

Philadelphia, 29 Dec. 1870

Hou James Pollock Director of the U.A Mint

Dear Sir

With the recent and present active Lilver business of the mint, I have been much hampered for want of a sufficient Silver Bullion Fund, to conduct my operations securely and yet to supply the active demand for boin and Fine Bars. One half of each lot of Ingots delivered to the Coiner is returned tome to be melted gapayed, & again delivered whim as Ingots, so that it remains in our hands not less than 40 days or two weeks. To accommodate the public, the depositor should be paid within two or three days after making his deposit, which we cannot now accomplish without endangering lofses to the government from overhaste. To accomplish this end, the Bullion Fund should

should be always in proportion to the amount of business transacted. I have made The following estimate of the amount proportioned to the present business of the Mint. amounts of Dilver regt on hand by: The melter Meximer, For refining Gold \$ 30,000 For working "Ingots (Hand and) \$ 100,000 "I making Fine Bars 10,000 The Chief Coiner. Working Stock 40,000 The Greasurer Fine Bars (ready) 10,000 Ready Coin, below half dolkar, 25,000 " Half dollar, 50,000 "Dollar 45,000 \$ 310,000 The amount on hand, reported about 200,000 Deficiency por efficient working \$ 110,000 If Therefore The bullion fund could be increased by about \$100,000 = we should secure despatch & safety. Respectfully yours Jato Booth

melter & Refiner

J. C. Bootto, MAR

Reports a required increase of \$100,000, in the Silver Bullion Fund of the Miller.

Rec . Lee 29, 1870

MINT OF THE UNITED STATES, MELTING & REFINING DEPARTMENT, Philadelphia, 28th Dec. 1870

Hon James Pollock Director of the U.S. Mint.

Dear Sir,

I have compared the weights from The New york alsay Office, ordered to be adjusted at the muit by the Secretary of the Treasury, with the U. S. Standard Troy Pound; and have found, that, Lince Their adjustment, they accurately agree with that Pound, in all their divisions, from five hundred ounces to the one hundredth of the ounce.

Respectfully yours Jate Booth

melter and Refiner

J. C. Boothe with Certificia accuracy Standard weights at N.y. assay office 12.5 De 28/70

U.S. DEPOSITEDE George Walker, President. Fred & H. Harris, Cashier. Third National Banks. Springfield, Mass, Dec. 22. 1870 Director U. S. Mint.

Phila. Pa..

Dear Sir.

I have forwarded thirday

by Adams Express Co. One hundred Dollars

in Nickel Cents, contained in two boxes From

ench.) If convenient, please send for proceeds a cheek on N. y. if not, three-cent coin. I should like, also a copy of instructions in regard to the purchase of Nickel Cents. Yours resp J. H. Harris Cas Ed.W. Jeeger, 100 - \$98--34- +48 old cents returned -

116. Harris Laching Jak Va Third Salvinal Bh Springfield mass Aficit of \$5.00 5 t tetions in regus Rec- Dec 26 18 70 Ree . Learn 1870

United States Assay Office [S. MIN] New York Dec. 23 1870. With the approval of the Seerelang of the Oheasung, under date of Dec. 20th, 1870, I have appointed Nicholas Hayo to be a Night Watchman in this Office, at \$ 4. per dien; his service to date from the 22° mist. The required outh has been duly administered, & forwarded to the Frist Comptroller of the Treasury. Very Respectfully, Those Syletino Duperintendent. Hon James Gollock, Director of the Mint Philadelphia,

N. 2. Assay Office Reports appt of a Night Watchman, Jarners & Alechanics National Bank
of Frederick, MdDec 23' 1870
How Varnes Pollocks
Superintendant U.S. Sbird.
Philadelphia
Dear Sir I forward you by Adams Expression the Kel Cent prices for recumption Tevo (2) Kego 1 Containing 200 pounds For which you will please Javor me with your Draft on U.S. Leasurer or Jorevard me Fine Gent tickel Coin for Surver I would prefer a Draft on The heavener, if you could so arrange it, we are overstocked with tickel of Every Kind, and would Save Expense in demelling the Time Cent Nickel to the Treasure for Redessifeties Lum ouer

If you are Compelled to redeem the Hickel Cents. dent Send any Three, Lend all in Time Cent hickely

Cery Truly Louis IMMBirelyfas

394. \$386. 12 sy tobe setund &

16.2/3/80 339 3.00

I. It Bireley Con Frederick Ud

Sends hicker cents it wants drop for ame Returner

Rec. Le 29 = 1870

United States Issay Office 480EM 89. Mar York Dec. 19 1870. In accordance with the request contained in your letter of the 17th inst. I have this day forwarded by express the standard mights in use at this Office for adjusting the ordinary mights. Respectfully Gonn, Thos Colon Mon James Pollock. Director of the mint, Philadelphia.

N.y. Assay Office their standard weights for ce-

Treasury Department, De & 16 1170 my Dear Lin I will hand you to forward to my adobeh (afficielly) ten capin of your annual report is perephase form. by hepothely Jurisy ffing oft Compts Hum James Pollock Desetes of the heart The effer

John Jay Knap Meh Comment

Waith 10 Copies Windows annual Reports



U.S. MINT GENERAL CORRESPONDENCE 1870/SEPTEMBER-DECEMBER

